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RAL HIGHWAY ADMINISTRATION
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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 8

STATE OF MONTANA
DEPARTMENT OF HIGHWAYS

FINAL
ENVIRONMENTAL IMPACT STATEMENT

ADMINISTRATIVE ACTION

for

PROJECT RF - 20 (4)
U.S. 191 SPUR

THIS HIGHWAY IMPROVEMENT IS PROPOSED FOR FUNDING UNDER TITLE 23 U.S.C. THIS STATEMENT FOR THE IMPROVEMENT WAS DEVELOPED IN CONSULTATION WITH THE FEDERAL HIGHWAY ADMINISTRATION AND IS SUBMITTED PURSUANT TO 42 U.S.C. 4332 (2) (C)

H. J. ANDERSON

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Date

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APPROVED AND ADOPTED BY:

Date

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INTRODUCTION

The purpose of the environmental statement is to analyze any action which may have significant economic, social, and environmental effects and to allow for public participation in the final decisions of the Montana Department of Highways when developing publicly financed highway improvements.

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SUMMARY SHEET

I. TYPE OF ACTION

(X) Administrative ( ) Legislative

( ) Draft (X) Final

(X) Environmental Statement ( ) Section 4(f) Statement attached

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III. PROJECT DESCRIPTION:

The project begins on U.S. 191 near the mouth of the West Fork of the Gallatin River, about midway between Bozeman and West Yellowstone, Montana. It extends up the West Fork drainage 9.1± miles to a point near the base of Lone Mountain near the divide between the Gallatin and Madison Rivers. The project is a Federal-Aid Primary Spur to Federal-Aid Primary Route 50, U.S. 191. It is located in Gallatin and Madison Counties. Exhibits A, B1, B2, and C show the location of the project.

A 30-foot wide paved highway, with two 12-foot driving lanes and three-foot shoulders will be provided.

IV. ENVIRONMENTAL IMPACTS

The proposed highway improvement would provide a safe and efficient transportation facility for the traveling public, in addition to improved access to the developing recreational community. The West Fork drainage, along with Gallatin Canyon, is undergoing major land use changes. The present gravel surfaced road has not caused the change; however, the proposed improvement will aid and perhaps further stimulate that change. The improvement would place projected increasing traffic volumes on an adequate modern facility rather than on a facility incapable of handling the increased traffic.

There has been opposition to the construction of the U.S. 191 Spur resulting from environmental concern that an improved road would encourage uncontrolled development which could be environmentally harmful. Some people feel that financing the road with federal funds is unjustified and have taken the case to court. The courts first ruled that the spending of federal funds was not warranted because the road did not qualify for inclusion in the Federal-Aid System. However, with the initial completion of the Upper Village, the court ruled that the road could be included as part of the Federal-Aid System.

Other probable impacts include a reduction of highway-related dust, mud, siltation, and vehicle wear and tear. No businesses, people or residences will be relocated. None of the alternates involve land from a publicly owned park, recreation center, or refuge of national, state, or local significance, including any land from historic sites of similar significance.

Approximately 60 and 108 acres of grazable and timbered acres, respectively, would be required for right-of-way, part of which is

marginal wildlife habitat. Some localized impacts on groundwater are possible, in addition to short-term increases in turbidity and siltation during construction.

Noise levels are anticipated to increase as projected traffic volumes increase. The highway user would be inconvenienced by traffic delays and detours during construction.

Agencies and organizations reviewing this statement are referred to the U.S. Forest Service Final Environmental Statement on the Gallatin Exchange Numbers 2 and 3, and the Montana State University's study on the Gallatin Canyon "Impacts of Large Recreational Developments Upon Semi-Primitive Environments" for a more complete discussion on the overall environmental impacts of the entire Big Sky development.

V. ALTERNATIVES

Six alternates were considered for the project in a 1972 Environmental Statement. The final alignment selected was a combination of two alternates that primarily followed the existing upper road.

This alignment is again under study, with two design sub-alternates around two problem areas, the active slide near the Medical Center, and the Beehive Creek crossing.

The no-build alternate was again considered.

After due consideration and study, the improvement alternate following the existing road was selected as the recommended alternate because it provided the needed improvement at the least disturbance to the surrounding area.

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VII. DATE DRAFT STATEMENT AVAILABLE TO C.E.Q.: April 16, 1976

VIII. SUBSEQUENT FEDERAL ACTIONS DUE TO THIS ACTION

Corps of Engineers - Section 404 Permit

U.S. Forest Service - Easement Transfer

ENVIRONMENTAL STATEMENT

I. NEED FOR PROJECT

The purpose of the proposed project is to provide a paved two-lane highway (part of the Federal-Aid Primary System) between the recreational community of Big Sky, Montana and U.S. 191. The proposed improvement of the U.S. 191 Spur would be approximately nine miles long, extending from its connection with U.S. 191 to the Mountain Village near the Lone Mountain Ski Area. Meadow Village, located on the Spur approximately two and one-half miles west of U.S. 191, and the Mountain Village, are the principal centers of the resort community. The Big Sky, Montana,Post Office is located at Meadow Village.

Although a major landowner in the area served by the U.S. 191 Spur is Big Sky of Montana, Inc., there are numerous private owners, in addition to Burlington Northern, Inc. and the U.S. Forest Service. The Spur is not the typical local road that serves little more than access to property, but is in reality a relatively heavily-traveled road serving major intercommunity movements.

The ski area, convention center, other recreational facilities, private residential units, and the attendant private, commercial, and public services normally associated with a community have become major traffic generators. The average daily traffic (ADT) for the U.S. 191 Spur for 1974 was 1,125 ADT, but this dropped to 820 ADT in 1975. The twenty-seven percent decline observed in 1975 may be attributed to: a decline in construction traffic due to the completion of existing commercial facilities and declining market demand for recreational housing; reduction of local sightseers, and reduction of traffic in general due to the energy crisis; recreational users making fewer daily vehicle trips and remaining at Big Sky for longer periods of time; and the

establishment of regular bus service. Traffic on the upper 6.1 miles was 621 ADT in 1975.

The design year traffic is the traffic that is expected 20 years after the project is awarded to contract. Traffic projections for the West Fork area are hampered by the inflation-recession trends, energy crisis, potential future developments, and the variable nature of recreational traffic. Recreational-type traffic has the characteristic feature of high traffic peaks and high weekend volumes. Weekend traffic at various times during the 1975 recreational year has reached 1,250 vehicles per day.

Due to the instability of the economic and energy conditions, the West Fork area is not expected to reach 100 percent development during the next 20 years, but it may reach 80 percent. Utilizing the Montana State University's land use development projections for residential and commercial development, it is estimated that the total development of the West Fork is currently 35 percent.

For the purpose of predicting future traffic volumes, it is assumed that traffic volume is in direct proportion to the amount of residential and lodging development. The present West Fork single-family private home, mobile home, condominium, and lodging unit development amounts to 1,152 units compared to a total proposed West Fork development of 5,826 units. Assuming 80 percent development by 1996, a total of 4,661 residential units would be in existence. Using this information, a growth factor of 4.05 can be computed (4661 units ÷ 1152 existing units = 4.05). The traffic expansion factor, times the existing traffic for the lower 3.0 miles (820 ADT) gives a 1996 design year traffic figure of 3,321 ADT.

The same direct proportion and factor approach is used to project traffic on the upper 6.1 miles of the Spur. However, existing development of 710

units for the Mountain Village and 80 percent of the proposed development of 3,325 units for the Mountain Village is used to find the growth factor of 3.75 (80 percent x 3325 = 2660; 2660 ÷ 710 = 3.75). The 1996 projected design year traffic for the upper 6.1 miles of the Spur is 2,329 ADT.

While the projected traffic is expected to more than triple by 1996, it is not expected to exceed the capacity of the proposed improvement. Capacity analysis takes into consideration the level of service, percent of commercial or truck traffic, and roadway width. Based on mountainous terrain, five percent commercial vehicles, and a 30-foot width, the capacity of the U.S. 191 Spur at the lowest level of service E is a design hourly volume (DHV) of 1,170 vehicles per hour, or an ADT of 7,090 vehicles. This figure is for the whole 9.1 miles of road. The capacity on some subsections would be lower, depending on the grade and alignment.

The existing road is an improved gravel road for the first three miles and the upper six miles is an improved logging road. Maintenance on the existing road has been difficult and expensive. The high traffic volumes make it impossible to maintain a smooth surface and dust control measures cannot adequately control the dust. The road users must fight chuckholes, dust, and mud to reach their destination and do not benefit from the state and federal gas tax or other revenues generated by the road and the community it serves.

The capacity of the present lower three miles was calculated using the same roadway width, level of service, and percent of commercial vehicles. While a deteriorated, poorly-maintained road does affect the level of service, particularly in terms of speed, comfort, economy and safety, it is rare for the maintenance to be so poor that 30 m.p.h., the approximate speed at which maximum capacity is attained, cannot be maintained. Therefore, even under

the poor service conditions, capacity of the existing road is the same as the improved road, 7,090 ADT.

The existing upper 6.1 miles of road has a capacity based on the stated conditions above, except for a 22-foot roadway width. The capacity is calculated at 2,250 vehicles per day. Therefore, the capacity of the upper road could be reached by 1996.

The importance of an adequate transportation system was pointed out in a background economic study, "West Fork Economic Growth Center, Gallatin County, Montana. (1) This report emphasized that unless the facility was "convenient and comfortable" the use of the recreational and commercial facilities would suffer, reducing tax revenues, jobs, and capital development. It also stated that a road design which considers its environmental impacts would aid in minimizing the impact of the intrusion of a large number of people on the West Fork area, and an adequate road system would held ensure that there would be enough users at the facility to develop some form of common carrier transportation system. A surfaced road would also improve the fire protection and school bus routes.

The Montana Functional Classification and Needs Study classified the 1990 system of highways for the State of Montana according to its uses or function and provides estimates of the costs to provide an adequate system of highways by 1990. Statutory authority originated from the Federal-Aid Highway Act of 1970, calling for the Secretary of Transportation to develop and include: "Specific recommendations for the functional realignment of the Federal-Aid Systems. These recommendations shall be based on the Functional Classification Study made in cooperation with the State Highway Department and local governments, as required by the Federal-Aid Highway Act of 1968,

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1) Wallner. "West Fork Economic Growth Center, Gallatin Gateway, Montana" Page 61.

and submitted to Congress in 1970, and the Functional Classification and Needs Study now underway of the Federal-Aid System in 1990."

According to the 1990 classification of arterial systems, U.S. 191 through the Gallatin Canyon is a principal arterial, with the proposed U.S. 191 Spur designated as a minor arterial. Both roads are appropriately included on the Montana Federal-Aid Primary System and virtually all major and minor arterials are paved.

The proposed improvement of U.S. 191 Spur is in accordance with available transportation planning objectives and will compliment facility plans.

HISTORY:

In January 1970, the Montana Department of Highways was contacted by the Montana Department of Planning and Economic Development regarding assistance in the design and construction of a highway in the West Fork drainage of the Gallatin River. The following month, former newscaster Chet Huntley publicly announced the proposed development of Big Sky of Montana, Inc. by Chrysler Realty. The recreational resort community of Big Sky would involve two separately developed areas in the West Fork drainage, the Meadow and Mountain Villages.

Several months after the public announcement of Big Sky, the Department of Highways, in negotiations with the Department of Planning and Economic Development, agreed to perform the necessary design and construction engineering studies on the proposed highway and to acquire right-of-way in the name of the counties involved. The improvement was to be funded with a grant from the Economic Development Administration (EDA) with matching funds from Big Sky of Montana, Inc., county and state, with the county's and the state's contribution being services and in-kind construction. Survey and design were started on that basis.

During the early design phase, consideration was given to the possible extension of the road to Ennis, provided that the boundary of the proposed Spanish Peaks Wilderness Area was settled. However, the Montana Department of Highways has not proposed extending the Spur route to U.S. 287, and the wilderness proposals for this area preclude such a proposal until the final boundaries are determined. The designation of the area as a primitive or wilderness area would forever preclude the extension. At the present time and in the foreseeable future, extension of the U.S. 191 Spur to the Madison Valley appears unfeasible because of the construction obstacles, environmental impacts, and lack of available funding.

In September 1970, the EDA request was turned down. It was decided at that time to proceed with the construction of the lower 3.0 miles with the matching funds available, and to pursue other means of funding for the remainder of the project. Amid considerable controversy over the environmental impact of the Big Sky Development and the contested Forest Service/Burlington Northern, Inc. land exchange, construction of the resort began early in 1971. Contracts were awarded in July 1971 for the construction of a structure across the West Fork and three miles of gravel surface roadway from U.S. 191 to the Meadow Village area utilizing funds from Big Sky of Montana, Inc. and state funds from the Montana Department of Highways. This section of roadway was built to standards acceptable to the Department of Highways.

On April 30, 1971, the Department of Highways made application to the Federal Highway Administration (FHWA) to designate the road as a Federal-Aid Primary Spur Route and on August 20, 1971 that application was approved. Establishing the highway as part of the Primary Highway System made the nine-mile Spur eligible for federal funding.

Application to the Federal Highway Administration for designation of the

West Fork drainage as an Economic Growth Center was made on August 12, 1971, and was approved in March 1972. This designation made the federal-aid matching ratio at that time 20 percent higher than on normal federal-aid primary projects.

A draft environmental impact statement for the surfacing of the lower three miles and total construction of the upper six miles was distributed in February 1972; a corridor public hearing was held on April 12, 1972. Construction of the gravel-surfaced lower three miles of the U.S. 191 Spur was completed in mid-1972, with the Department of Highways assuming maintenance on September 27, 1972.

The final impact statement for the nine-mile Spur was reviewed and accepted by the Federal Highway Administration and forwarded to the Council on Environmental Quality in October 1972. Location approval was granted by the Federal Highway Administration on November 30, 1972. However, a civil suit was filed in Federal District Court against the U.S. Department of Transportation and the FHWA by the National Forest Preservation Group and others.* The summary judgment made in December 1972 prohibited the spending of federal funds for a road where a traffic generator did not presently exist. As a result of the court decision, FHWA withdrew the primary designation of the Spur.

By December 1973, the Forest Service/Burlington Northern, Inc. land exchange had been settled and Big Sky of Montana, Inc. started operating its ski and commercial facilities, in addition to construction of condominiums, lodge, office, and hotel at the Mountain Village. Big Sky had also completed the upgrading of the existing West Fork logging road which connects the Meadow and Mountain Villages.

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*National Forest Preservation Group et al., Volpe, National U.S. D.C., Montana Civil No. 2152

The existing upper road is held in joint ownership by the Forest Service and Burlington Northern, Inc. Big Sky acquired private land that had a right to use and maintain the road. Big Sky, as successors in interest, continues to use and maintain the road, but the road remains under the administration of the Forest Service, which has the controlling interest in the form of a deeded easement.

In April 1974, the Montana Department of Highways requested a reevaluation of the system designation because of the continuing development of the area. On August 9, 1974, the Federal Highway Administration concluded that the deficiencies cited in the court order no longer existed and approval of the Spur as part of the Federal-Aid Primary System was again granted. Authorization for preliminary engineering activities to develop location and preliminary design data and environmental impact information was granted on September 11, 1974.

The Federal Highway Administration reviewed public input received following the publication of a notice inviting comments, and determined on January 30, 1976 that improvement of the entire nine-mile section was a major action and an Environmental Impact Statement was warranted.

The Federal Highway Administration filed a motion in Federal District Court to dismiss the 1973 summary judgment as moot and on May 27, 1976 the injunction granted in December 1972 was dissolved. The plaintiffs, National Forest Preservation Group et al., thereafter filed a motion for reconsideration, which was denied by court order of July 20, 1976. Thereafter, plaintiffs filed notice of appeal to the U.S. Court of Appeal, 9th Circuit. This appeal is presently pending before that court.

The series of court actions stem from the fear of environmental degradation of the Gallatin Canyon as a result of the change in land use, highlighted by

the Big Sky development, and that the U.S. 191 Spur would further harm the environment by encouraging uncontrolled development. Improving the road with public money, to what some people felt was just a private resort rather than a community, was felt by those who oppose the project to be a misuse of public funds because the road would not serve through traffic or be a main connecting highway, and therefore the primary designation was in violation of statutory authority.

The court rulings at first upheld the objections to funding the road with federal funds. With the development of the Big Sky Community, the court held that the U.S. 191 Spur was now a connecting road and could qualify as a part of the Federal-Aid System.

Several detailed studies and environmental impact statements have been made on this area. The information in this report is summarized and a more detailed account can be found in those reports listed in the Appendix.

II. DESCRIPTION OF THE PROPOSED HIGHWAY IMPROVEMENT AND ITS SURROUNDINGS

A. PROJECT DESCRIPTION

The project is located in Gallatin and Madison Counties in southwestern Montana (see Exhibit A). It begins on U.S. 191 near the mouth of the West Fork of the Gallatin River about midway between Bozeman and West Yellowstone and extends westerly up the West Fork drainage, a distance of 9.1± miles. The proposed improvement consists of two anticipated construction sections; the lower 3.0 miles, Station 0+00 to Station 159+00, and the upper 6.1 miles, Station 159+00 to Station 480+00. In general, the project would provide for surfacing the existing road on the lower 3.0 mile section, with reconstruction, possible alignment changes, drainage, and surfacing of the upper 6.1

miles. The preliminary cost estimate on the lower three-mile section may reach $502,000.00; the upper 6.1 mile section estimate may reach $3,400,000.00. To date, Big Sky of Montana, Inc, has spent $280,000.00, and the Department of Highways $290,000.00 on the lower three-mile section. Big Sky has also spent $712,000.00 in upgrading the existing road between the Meadow and Mountain Vallages. Present schedules indicate a contract award for the lower three-mile paving in early 1977, with the upper 6.1 miles of construction and paving scheduled in 1978-79.

The new roadway would provide a 30-foot paved surface with two 12-foot driving lanes and two three-foot shoulders. Normal design standards would require a 40-foot surface, but this 30-foot width is an exception that will be used to reduce costs and environmental impacts. Inslopes would have 6:1 safety slopes, with a minimum ditch width of 15 feet. Cut and fill slopes would vary according to their height and the type of material encountered. The minimum right-of-way would be 60 feet on each side of the road centerline. Right-of-way would be acquired from the owners of private land crossed by the road not in the existing right-of-way. Big Sky of Montana Realty, Inc, has indicated in a letter dated October 20, 1976 (see Appendix F), that they will donate land owned by the company which is needed for right-of-way for the construction of the U.S. 191 Spur. The Forest Service will recommend that a U.S. Department of Transportation Easement be granted for that portion of the existing road that the Forest Service has easements on.

Drainage structures would be provided based on hydrologic and hydraulic studies. Drainage structure design would be based on a 50-year flood frequency, with consideration of the 100-year storm data.

Except for the West Fork, the streams involved are not large enough to require bridge structures. Minor channel adjustments would be required at culvert ends.

Design standards for the project will be in accordance with the State of Montana, Department of Highways Design Standards for Primary and Secondary Highways, except in those cases where physical or environmental conditions indicate that a reduced design standard would be in the best interest of the total project.

B. GEOLOGIC HISTORY

The Madison and Gallatin Ranges occupy the southeastern end of the northern Rocky Mountain Physiographic Province. Generally, these ranges are the result of ancient Precambrian crystalline rocks overlaid with marine sediments of Paleozoic and Mesozoic Ages. The area was subjected to compressive forces which caused uplifted corrugative folds bounded by faults. Volcanic action and flows followed the uplifting. The softer sedimentary rocks have been eroded from the higher areas leaving the basement rock exposed and the lower areas as dumping grounds for the eroded material.

During the Pleistocene Age, the upper reaches of this area were subjected to glacial ice. As a result, morainal and other glacial deposits are common and the streams have spread this debris out in aprons in the valleys.

Landslides, mudflows, and slumps are major factors in the evolution of the landforms in this area, with about 25 percent of the surface area determined by these actions. Such movements are the result of a combination of an abundance of surface water, steep slopes, and rock and soil formations that by their chemical makeup make them

susceptible to movement. Although most movement has occurred in the past under different climatic conditions, there are still several active sites. These movements can be expected to continue in a diminished form, especially since this area is active seismically.

C. GEOLOGY

The predominant rock types in the West Fork Basin are shales and sandstones of the Kootenai and Colorado formations of the Cretaceous Age. Associated igneous intrusive and volcanic rocks make up the dominant rock type forming the higher mountains of the upper valley. Overlying the shales and sandstone are glacial tills and alluvial material which range in depth up to 50 feet.

This alluvial material is porous and transfers water to the impervious black shale stratum quickly. Water is collected at this level and discharges into the groundwater system of the Gallatin drainage basin.

The materials concerning highway construction are the glacial tills, dark clay shales and zones of bentonitic volcanic ash underlying the till. These materials are inherently unstable and will require special attention in highway design. The black shales have the most critical limitations where weight-bearing capacity, slope stability, and water passing ability are concerned.

Stability of these materials is further affected by locally high groundwater tables or heavy surface runoff. These factors have been the cause of numerous landslides throughout the valley and the potential for landslides or other mass-gravity movements exists throughout the entire area. Most of the active slides are generally of the slump block or mudflow type and are relatively small in size.

The existing logging road alignment crosses several areas which are either presently unstable, or due to future construction, could become potentially unstable. These areas have been a maintenance problem and will continue to be unless future improvements are designed to recognize this activity.

The possibility of earthquake shock compounds the magnitude of instability, as shown by the 1959 Madison Canyon Earthquake. This event, plus the evidence of fault movements in the West Fork area in the relatively recent geological past point to the clear need to consider all land use planning and construction from an earthquake hazard point of view.

D. TERRAIN

The U.S. 191 Spur is located in the West Fork of the Gallatin River. This river basin occupies about 100 square miles and ranges in elevation from about 6,000 feet to over 11,000 feet at the summit of Lone Mountain. The basin is typical of the northern Rockies. Glaciers of the past have given the terrain its strong alpine character. The surrounding mountains, the Spanish Peaks to the north, and the Madison Mountains to the south are of the same formation but are divided by the West Fork drainage to the Gallatin River to the east and Jack Creek to the Madison River on the west. Lone Mountain is the dominant physical feature of the area.

The West Fork drainage contains open meadows in its lower reaches and timber-covered ridges at higher elevations with timberline above 9,000 feet. The West Fork branches into the South Fork, the Middle Fork, and the North Fork, with these streams being fed by smaller tributaries.

E. CLIMATE

Topography and elevation variation play a very important part in determining the temperature, wind, and precipitation of the area. In general, the mountainous sections are wetter and cooler than the broad valley floors.

West of the Continental Divide the climate tends to be controlled by the flow of moist, Pacific marine air. East of the divide, it becomes continental in nature with outbreaks of dry, often cold air from Canada and southerly, moist air from the Gulf of Mexico. The mountains serve as barriers to the Canadian air outbreaks and flows from the Gulf of Mexico. Storms and weather fronts from the Pacific moving across the area during the winter lose much of their intensity and moisture west of the divide. As a result, flows from the Gulf of Mexico, strongest in the spring and early summer, produce most of the precipitation in the area. The cold outbreaks from Canada occasionally reach the area during the winter and provide the coldest extremes experienced. Thunderstorms are occasionally observed, especially in the late spring and summer months.

Midwinter temperatures at the Meadow Village, elevation 6,200 feet, average about 4° colder, both day and night, than Bozeman, elevation 4,856 feet, which has an average high in January of 31°F, and a low of 10°F. Meadow Village midsummer temperatures average about 6° cooler during the day and about 12° colder at night than Bozeman, which has an average high in the low 80's and lows of about 50°F. With an elevation of 7,600 feet, temperatures at the Mountain Village run about 8°F cooler during the day and about 3.5° cooler at night than Meadow Village, both summer and winter. Seasonal development of plant life in the Meadow Village area occurs approximately two to three weeks later than Bozeman.

Duration of the growing season averages about 70 days at the Meadow Village and from 90 to 110 days in the Bozeman area.

Precipitation varies widely over the West Fork drainage because of the 5,000 foot difference in elevation from the headwaters to the mouth. On the average, it varies from nearly 60 inches at the highest elevations to less than 20 inches annually. Estimates based on streamflow leaving the drainage indicate that the average precipitation is about 35 inches annually, with slightly less than half being lost to the atmosphere through evaporation and transpiration. The largest percentage of precipitation occurs in the form of snowfall, from December through May.

Winds in the West Fork at any given time will vary greatly from one location to another. High ridges may be windy when the canyons have little wind. However, the general flow of air is from the west and the wind is generally light. On relatively windless nights in the mountains cold air flows downhill to form cold air lakes in low-lying basins. The hillsides are usually drained of cold air and tend to be thermal belts.

These cold and warm sites are located all up and down the Gallatin Canyon. Areas of cold air ponding tend to become foggy and collect smoke, dust, and other contaminants released to the atmosphere. These inversion layers can occur nightly for days during the presence of an atmospheric high pressure system over the region.

F. AIR QUALITY

Inversions occur in the West Fork mostly in the winter. The meadow and Mountain Village areas have approximately the same air pollution potential when considering ventilation since both have roughly the same number of calm periods, although the Mountain Village area has longer periods of calm winds, implying that this location may be more apt to

have a problem with air quality.

Measurements of suspended particulates in the air, of which a large portion is dust, began at the Big Sky area in 1971. This data, along with large air ion analysis, revealed that there was no measurable change in air quality in 1971. An increase in particulates was observed in 1972, but it did not rise significantly from 1972 to 1974. The highest concentration existed during the snow-free season.

Over the history of the Big Sky development, small increments in air contamination have been observed, but at present no real degradation of air quality has been documented for an extended period of time. 2)

G. WATER QUALITY AND QUANTITY

While the West Fork receives more precipitation than the lower Gallatin River, there is not an overabundance of surface water in the Gallatin drainage. Much of the time adjudicated water rights on the Gallatin River exceed the entire flow of the river.

The availability and quality of water has played an important part in the development of Big Sky and surrounding area. Groundwater appears to be abundant on the Big Sky property, with saturated soil thickness of 58 feet and well yields as high as 200 gallons per minute. Water tables have fluctuated only slightly.

Since the Gallatin River is a Blue Ribbon trout stream and has tremendous scenic value, pollution of the stream would have a very adverse impact. Big Sky constructed a closed water treatment system for both villages and formed a rural improvement district to operate the central sewage system. Included in the boundary of the RID are adjacent lands of other owners, including I.C.B.I. Development's West Fork Meadows located

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2) Heimback, J.A., J.L. McPartland, A.B. Super, Air Pollution Potential Determination for Big Sky, Montana, Gallatin Canyon, Monograph #14 Montana State University, 1973

southwest of the Meadow Village. The Gallatin Canyon Case Study has shown no observable adverse changes in the chemical or biological quality of the surface or groundwater.

There were periods of increased turbidity and sedimentation resulting from construction of the resort and a channel change for the realignment of the U.S. 191 Spur in 1972, but this has dropped off as the construction ended. Studies show that aquatic insects are recovering in the new streambed created during the relocation of the West Fork, although preconstruction levels had not been reached as of 1974.

The Water Quality Bureau of the Montana State Department of Health and Environmental Sciences has classified the West Fork and the Gallatin Rivers as high quality streams. This means that the quality is to be maintained suitable for bathing, swimming, recreation, propagation of salmonid fishes, and associated aquatic, agricultural and industrial supply, and drinking after specified levels of treatment. Sanitary restrictions are automatically placed on all subdivisions until the Water Quality Bureau is satisfied that there will be no degradation of water quality resulting from those subdivisions.

H. VEGETATION

The coniferous forest and associated flora of the upper Gallatin drainage and the east slope of the Madison Mountain Range, without the influence of man, is quite predictable along a forest gradient of increasing moisture, descreasing temperatures and known soil variations. (Pfister 1974)

The climax vegetation along the proposed project alternate alignments has been altered by logging, grazing of livestock, forest fires and other activities of man. Due to these forces, lodgepole pine has invaded and is

the principal coniferous species with lesser amounts of Douglas-fir, Engelmann spruce, subalpine fir, leaving only the high windswept slopes to the hardy whitebark pine. At the lower elevations, open flatlands support plant communities of sagebrush, grasses and perennial forbs; riparian (streambank) vegetation is prevalent along the watercourses. As the elevation increases, the coniferous forest is interspersed with parks and wet meadows. These more moist sites support grasses, shrubs and forbs indigenous to subalpine meadows and canopied forests. (Pfister 1974) (See Appendix B and C for plant species)

I. FISH AND WILDLIFE

The West Fork area serves as home range for a variety of wildlife species. Elk are the major influent big game animals in the drainage, with the Gallatin Canyon supporting one of the largest elk herds in the state. Other big game in the area include mule deer, moose, bighorn sheep, mountain goats, and black bear. Grizzly bears may also reside in or around the drainage. (3) The predominant game bird in the area is the blue grouse; lesser numbers of ruffed grouse are also present. In addition to game species, the project area is populated by various song birds, raptors, predators, furbearers, and numerous small mammals.

No known big game winter range or migration route lies within the immediate project area. However, the areas west and southwest of the West Fork drainage, the area surrounding Lone Mountain, and the Jack Creek drainage are known elk summer ranges. Elk winter ranges are known to exist to the south and east of the Big Sky complex.

The only threatened or endangered species in the region is the grizzly

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3) Picton, H.D., 1972. Elk, Economics and Recreational Development; Gallatin Canyon, Montana. N.W. Section, The Wildlife Society, Corvalis, Oregon, March 1972.

bear, which has been classified as threatened. The exact status of the grizzly bear in the area of the proposed highway improvement is unknown. It is probable that grizzlies do not frequent the area because of their incompatibility with extensive development. A study by the Interagency Grizzly Bear Study Team, which commenced in 1973, includes the West Fork drainage. The nearest confirmed siting of grizzly bears to date has been approximately five miles from the project area. Hunting of grizzly bears has been closed in the area bordering Yellowstone Park, including the Gallatin Canyon, since 1974.

The most important fishery in the general area is the Gallatin River, which is rated as a Blue Ribbon trout stream, from the vicinity of Sage Creek north past the mouth of Spanish Creek. (4) Fisheries in the project now include the West Fork of the Gallatin, the North and Middle Forks of the West Fork, Beehive Creek, and Ulreys Lakes, which are in the Jack Creek drainage of the Madison River basin. The West Fork classification of the fishery is unknown.

The most important game fish in the region is the rainbow trout, with brown, cutthroat, brook, rainbow-cutthroat hybrid trout, and mountain whitefish also found. Rainbow, brown and brook are not native to the area; plantings have been discontinued.

J. LAND USE

The past trends and present land use characteristics of this area have depended on natural resources, the type of ownership (public or private), the percentage of ownership, location, and the absence of zoning regulations or guides for land development. An additional factor is the nationwide increase in demand for outdoor recreation.

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4) Brown, C.J.D. et al. A Classification of Montana Fishing Streams, By Stream Classification Committee. Montana Department of Fish and Game, Helena, Montana.

Southwestern Montana and northwestern Wyoming were recognized early in the development of these states as possessing scenic, unique areas. Large portions have been set aside as national parks and primitive areas to preserve the natural setting.

The combination of land forms, lakes, streams, climate, location and forest environment make the Gallatin Canyon very attractive in terms of recreational potential. The presence of Yellowstone National Park, the Spanish Peaks Primitive Area, and the development of Big Sky adds to that potential. Yellowstone Park attracts over two million visitors annually, with U.S. 191 as a major route to the Park. The Gallatin Canyon is an area with a limited population, and with the exception of U.S. 191, limited access. Topographic contrasts have also limited the type and extent of development.

At about the same time public land reserves were being established the federal government was also stimulating the growth of the western states by encouraging the building of railroads. As incentive to build the railroads through the undeveloped states, land was granted to the railroads. In the Gallatin and Beaverhead National Forests, these grants were in a checkerboard pattern, with the Forest Service owning the even-numbered sections and Burlington Northern, Inc., through a merger with Northern Pacific, owning the odd-numbered sections.

Starting with the extension of Yellowstone Park to include private land in 1926, land exchanges were initiated to eliminate the private holdings in the park, and to consolidate land for management reasons for both the railroad and the Forest Service. (5) A total of three land exchanges have been proposed to date.

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5) Final Environmental Statement, Gallatin Exchanges, Numbers 2 and 3, U.S. Forest Service, July 1971. Page 1.

The Forest Service owns about three-fourths of the Gallatin Canyon, with the Burlington Northern, Inc. owning much of the remaining land. A number of private lands occupying the lowlands near the streams and the U.S. 191 highway corridor resulted from homesteads. The railroad, in the past, sold some of its land in the West Fork and Taylor Fork drainages to other private owners. Big Sky of Montana, Inc. acquired a major portion of its holdings from the private owners in the West Fork drainage.

There are 64,500 acres in the West Fork and Beaver Creek drainages. Before the Gallatin Exchange No. 1 in 1967, the United States owned 50 percent, or 32,640 acres; Burlington Northern, Inc, owned 30 percent, or 19,740 acres, with other owners accounting for 19 percent, or 12,120 acres. After the three land exchanges, the United States retained 28 percent, or 18,340; the Burlington Northern, Inc., after a sale of 1,930 acres to Big Sky of Montana, Inc, owned 50 percent, or 32,110 acres; Big Sky, with 8,720 acres bought from various private owners and the land purchased from Burlington Northern, Inc. owned 17 percent, or 10,650 acres. The remaining owners retained about five percent, or 3,400 acres. (6)

Land use varies from agriculture and logging to outdoor recreational activities, including hunting, fishing, hiking and camping, with Big Sky becoming a regional center for downhill and cross-country skiing. Snowmobiling has become popular, with West Yellowstone becoming a nationally known center for this sport.

Agricultural usage is primarily limited to grazing activities, with several ranches combining them with tourism to form dude ranches. Both the Forest Service and private landowners issue grazing permits to allow their land to be used as pasture by others.

Recreation is playing a larger role as the land use changes in the

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6) Ibid. Pg. 26

Gallatin Canyon. The following is a tabulation of recreational use on National Forest land on the Gallatin District over the past three years. The use is recorded by thousands of visitor days. A visitor day is 12 hours of recreational use. Also included are the number of skier visits at Big Sky over the past three years.

GALLATIN DISTRICT

Calendar Year	*1973	1974	1975
Campground Use	35.9	34.8	29.8
Picnic Ground Use	11.7	7.3	5.6
National Forst Permitted Resorts	4.3	4.6	4.6
Recreation Residences	17.3	17.3	17.3
Winter Sports	1.2	33.8	41.8
Interpretive Sites	.1	.1	.1
Recreation Roads (Driving)	38.5	35.0	35.0
Recreation Trails	13.0	13.0	17.7
Fishing - Lakes	1.1	1.1	1.7
Fishing - Streams	17.3	5.5	5.5
General Undeveloped Recreation	41.2	29.5	37.0
Spanish Peaks Primitive Area	15.8	12.7	13.5
TOTAL	197.4	194.7	209.6

*Note: In 1973, the Wally Byam Caravan convention was held in Bozeman, resulting in increased use in the Gallatin Canyon.

	1973-74	1974-75	1975-76
Skier Visits at Big Sky	53,500	71,300	120,200

Source: Gallatin Ranger District, Gallatin National Forest

The Forest Service and Burlington Northern lands are mostly timbered mountains. Forest Service land is managed under a multiple-use concept

which includes timber harvesting, grazing, recreation, wildlife, wilderness use, and watershed management for each district. This land is open to the public though the access may be limited by private owners bording the Forest Service land or by the Forest Service itself. The Forest Service does not have the authority to control the use of private land inside the National Forest, but can use measures available to any landowner to control actions that may damage National Forest land. (7) Through the use of the special-use permit, the Forest Service has allowed some commercial and private development on public lands.

Burlington Northern, Inc. manages its land under a multiple-use program for timber, water, mining, wildlife, and grazing, with the public using it for recreation due to the intermixing with public lands. (8)

Between 1947 and 1970, a total of 607 acres in the Gallatin Canyon were subdivided in 489 lots, primarily for permanent and seasonal single-family units. Residential and supporting commercial sites were of low-density and concentrated along U.S. 191. Subdivision activity was fairly light, but started to increase as demand for second homes increased.

Following the Forest Service land exchanges and the announcement of the Big Sky development, the accent on land use began to change from a rural setting to a more urban type based on commercial recreation. In the Gallatin Canyon (excluding Big Sky of Montana, Inc.) during 1970-71, 460 acres were subdivided into 307 lots. In the period 1972-74, 1,291 acres were divided into 513 lots.

The Big Sky complex is being developed according to a master plan drawn up during the initial planning stages. While the complex is not completed and some minor changes have been made, development is still

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7) Ibid. Pg. 26
8) Ibid. Pg. 12

following that plan, which is to develop 2,350 acres out of a total of 10,648 acres. The remainder of the land is to left untouched, except to reforestation and reseeding. When completed, the resort community will have facilities for 7,000 to 10,000 persons. Big Sky to date subdivided 1,378 acres into 677 lots for single-family residents and eight lots to accommodate 1,364 condominium units.

Big Sky of Montana, Inc.'s two villages provide a compact residential-recreational community, with service and tourist-oriented commercial facilities. The Meadow Village is primarily for summer activities complete with an eighteen hole golf course, while the Mountain Village is based on winter activities with skiing as the main attraction. The ski hill is located mostly on Big Sky's land except for the very upper portion on Lone Mountain, which is on Forest Service land. A special-use permit was issued to Big Sky by the U.S. Forest Service to allow for the completion of the ski hill.

Electricity is the only power source in the West Fork. Existing power capacity in the Gallatin Canyon was insufficient to meet the new projected demand. In 1970, Montana Power Company constructed a 69 kilovolt (KV) line from Gallatin Gateway through the Gallatin Canyon to Big Sky. The line is fully energized at this time. Montana Power has also submitted applications to the U.S. Forest Service and the Montana Department of Natural Resources (DNR) to construct a 161 KV line from Clyde Park to Dillon, with a spur crossing Forest Service and Burlington Northern land to the West Fork and Big Sky via Ennis and the Jack Creek drainage. This line would provide future power to Big Sky and insert a loop into the regional power grid. Approval has not been granted by the Department of Natural Resources or the U.S. Forest Service. A draft environmental

impact statement on the application was distributed by DNR in February 1976.

Park View West, previously known as Karst Ranch, consists of 46 lots totaling 98 acres and has received Montana Department of Health and Environmental Sciences' approval. Approval on three subdivisions around Hebgen Lake (211 acres) has not been granted. The Beaver Creek South development (95 acres) has been approved by the Gallatin County Commissioners, but approval by the Department of Health is presently pending an appeal before the Montana Supreme Court.

Ski Yellowstone is a proposed 2,900 acre ski resort on the north shore of Hebgen Lake. An application has been made to the U.S. Forest Service for a special-use permit. Action on the permit is pending the outcome of an appeal on the U.S. Forest Service's Hebgen Lake Planning Unit Final Environmental Impact Statement.

The West Fork Meadows subdivision, consisting of 42 acres located immediately southwest of the Meadow Village, presently has condominiums under construction. Developers may further subdivide an additional 120 acres. The proposed highway improvement would also serve this site.

Logging and agricultural activities have continued with little change except that it has ceased on Big Sky land. Snowmobiling has also been banned on Big Sky land. No significant increase in the number of commercial enterprises outside of the West Fork has taken place and development in the Gallatin Canyon has progressed at a slower pace than was originally anticipated by many canyon residents.

In 1973, Yellowstone National Park set a limit on the number of overnight accommodations within the park. This policy has put additional pressure on existing camping facilities surrounding the park, including those in the Gallatin Canyon.

K. LAND USE PLANNING

The Bozeman-Gallatin City-County Planning Board had the responsibility for developing planning programs for the city of Bozeman and its surrounding jurisdictional area. The Board also acted as a reviewing agency for subdivisions and development plans for Gallatin County until 1974 when the Gallatin County Subdivision Regulations were passed. An attempt to organize a countywide planning board in 1971 was defeated by local voters. The final approval or denial power on subdivision plats and development plans rests with the Gallatin County Board of Commissioners.

Several attempts by landowners, before the appearance of Big Sky of Montana, Inc., to implement zoning were unsuccessful. In June 1970, the Gallatin Canyon Association was formed by residents and property owners. This organization petitioned the State Planning Division to arrange for a Canyon Comprehensive Plan. A California planning firm, Murray-McCormick Environmental Group, was hired to prepare a land use plan for the Gallatin Canyon under the direction of the Association's Citizens Advisory Committee and Technical Advisory Panel. The final report, entitled "The Gallatin Canyon Planning Study" was circulated in July 1972, and was finally accepted in principle by the Advisory Committee in December 1972. The committee then notified the state agencies that had jurisdiction in the areas covered by the study of the findings. The committee authorized submission of the study to the Gallatin Canyon Association, but no further public action has been taken to implement the plan.

Big Sky's Plan is the only land use plan in effect that is traversed by the U.S. 191 Spur, at present. The proposed improvement is consistant with that Master Plan.

Residents in the Gallatin Canyon south of Buck Creek to the Yellowstone

National Park boundary petitioned the Gallatin County Commissioners and received approval on May 29, 1975, of a temporary zoning ordinance, freezing subdivision activity for a year's period. During this period a master plan and a permanent zoning ordinance was to be developed.

The U.S. Forest Service is engaged in extensive planning and land use studies in the Gallatin National Forest as an ongoing process of updating its multiple-use management plan. The areas that concern the West Fork region are the proposed Spanish Peaks Wilderness Area to the north, the Taylor-Hilgard Planning Unit, which includes the proposed Hilgard New Study Area to the south, and the Pocupine-Buffalo Horn Planning Unit, which is included in the proposed Hyalite-Porcupine-Buffalo Horn Study Area to the east.

The Spanish Peaks Wilderness Study Area presently covers about 63,300 acres, including the existing Spanish Peaks Primitive Area. The Spanish Peaks Study Area was created under the Wilderness Act of 1964, which requires all areas previously designated as primitive to be studied for wilderness classification. A proposal to expand the study area to 113,100 acres has been made.*

The Taylor-Hilgard area, about 245,000 acres, which includes the land south of the West Fork of the Gallatin River Basin, west of the Gallatin Canyon and north of Hebgen Lake, and the Hyalite-Porcupine-Buffalo Horn Area, 163,000 acres, located from 15 miles south of Bozeman south along the Gallatin Range to the Yellowstone Park Boundary, were nominated for wilderness classification, along with eight other areas in Montana by Senate Bill 393. However, Senate Bill 393 remains in committee in the U.S. Senate and until passed its provisions will not govern National Forest land. If passed, the wilderness study area will undergo a five-year study period,

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* SB 355 (Spanish Peaks)

with any resource allocation being restricted that would preclude including the area in wilderness.

The 1975 Montana Legislature passed the Montana Economic Land Development Act which requires all counties to have planning in 1977. This act provides tax incentives for appropriate land uses and could guide land use practices in the Gallatin Canyon after 1977. New amendments to the Montana Subdivision and Platting Act were also passed in 1975, which requires development to be in the public interest. This legislation has been implemented for local subdivision review procedures.

L. POPULATION

The population of Gallatin County has increased 38.5 percent from 1960 to 1973 while over the same period, Montana as a whole, increased only eight percent. The West Yellowstone Census Division, which includes the entire southern portion of Gallatin County, has shown the highest population growth, 83.5 percent, in the county from 1960 to 1970. (9) Most of the growth was around the town of West Yellowstone, while the Gallatin Canyon remained sparsely populated with only 154 residents in 1970. By 1974, the permanent population of Gallatin Canyon had grown to 719, with 365 living in the West Fork area. Seasonal residents in the Gallatin Canyon numbered about 1,100 in 1970 and grew to an estimated 1,600 by 1974. (10) Big Sky of Montana, Inc. now estimates the permanent population of the West Fork drainage at about 465, with 100 at the Mountain Village and 200 at the Meadow Village.

While the permanent population has grown considerably in the last five years, the overriding population increase is due to the tourist population.

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9) Wallner. Pg. 19
10) Stuart. Pg. 48

The peak day population in the West Fork is reached during the winter ski season, with about 3,000 skiers using the facilities at the Mountain Village.

M. ECONOMICS

Gallatin County has one of the fastest growing economies in Montana. The economy in the past has been based heavily on agriculture and education, with some light industry, tourism and recreation. Bozeman, while the center of the agricultural community, has also been influenced by the growth of Montana State University. The University, with a staff of over 700, has grown from an enrollment of 4,750 students in 1963 to over 8,900 students in 1975.

Recreational attractions, in addition to Yellowstone National Park, include Bridger Bowl Ski Area, Virginia City, Lewis and Clark Caverns, Madison Canyon Earthquake Area, and the Gallatin Canyon with the Spanish Peaks Primitive Area, Gallatin River, and Big Sky. Not all of these areas are located in Gallatin County but they all influence to some extent the tourist activity in the county.

County business indicators, such as bank debits, wages paid, electrical accounts, telephone stations, building permits, vehicle registrations, and restaurant and hotel-motel capacity, show an increase in activity from 1960 to 1970. There has been a marked increase since 1970. Other major changes occurring in Gallatin County, such as general population growth, increased tourism, land values, and agricultural income indicate that growth would likely have continued without development of the West Fork.

The number of people employed in Gallatin Canyon from 1960 to 1970 had grown by 31.9 percent, but so did the number of unemployed, from 3.7 percent to 5.0 percent. The rise in both categories was probably due in

part to the rapid increase in enrollment at Montana State University. Employment in the agricultural and manufacturing sectors had declined in the last decase, but more than made up by the increase in employment by government agencies, trade and service sectors. (11)

Prior to the development of the West Fork the economic base of the Gallatin Canyon was small, consisting of ranching, logging, and recreation. Many of the permanent residents were either commuters to Bozeman or retired persons. The remainder were primarily proprietors or employees of Canyon businesses. (12) In 1970, there were 12 business establishments, with a total annual volume of less than $100,000 per business. Maximum employment during the peak season amounted to about 85 people, mostly local help and college students. The guest ranches could accommodate about 225 people. Cabins and motels had a sleeping capacity of about 125 and cafes could seat about 170. (13)

West Fork business consisted of a motel, store, and service station at the mouth of the West Fork, a ranch, and a dude ranch where the Big Sky Ranch is now located.

A less than significant amount of new commercial construction has occurred in the Gallatin Canyon since 1970. Additional sleeping capacity has been added by remodeling of facilities and a few additions have been made to dining and dancing space, including a new restaurant.

The Big Sky business community is characterized by facilities and services being provided by property owner associations, private or leased businesses, or directly by Big Sky of Montana, Inc. The following is a summary of businesses and services now in operation.

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11) Wallner. Pg. 6 and 10
12) Ibid. Pg. 3
13) Stuart. Pg. 74

Meadow Village Area:

Restaurant	Post Office
Convention Center	Telephone Company
Bar-Lounge	Power Company
General Store	Visitor Center
Hotel	Sewage Treatment System
Volunteer Fire Department	Water Company
Service Station	

Sports facilities: golf course, tennis courts and swimming pool.

Medical Clinic with 24-hour staff.

Guest Ranch

Restaurant	Meeting Room
Cabins	Stables

Mountain Village:

Mall: Shopping center including five stores, three bar-lounges, cafeteria, steak house, day care center, lockers and ski lift facilities.

Convention Center hotel, including restaurant, meeting rooms, bar-lounge and other services.

Hotel

Big Sky, Inc. Headquarters

Camper Village:

In January 1975, Big Sky had accommodations for over 2,000 persons per night, dining facilities for over 1,600, and a ski lift capacity of 5,200 per hour. No major additions of businesses or services are anticipated in the next few years. Ultimate condominium development is less

than 25 percent complete; private home development is less than ten percent complete.

The volunteer fire department and water company are owned by Big Sky and the sewage system is owned and managed by Rural Improvement District (RID) No. 305. The condominiums are managed by a management association of the owners. Solid waste disposal facilities are provided by an independent contractor. The Montana Power Company supplies the electricity and Continental Telephone provides the telephone services. The medical clinic is owned and operated by a group of private physicians, with the ambulance service also provided by a private company.

The non-construction employment in the total Big Sky Development in the 1974-75 season was about 450 between December 15 and April 10, of which about 300 were employed directly by Big Sky. Employment dropped to about 200 during the summer, of which about 125 were employed by Big Sky. This employment level produced an annual payroll of over $1,500,000.

Since Meadow Village is located in Gallatin County and Mountain Village is located in Madison County, two separate school districts exist in the project area. All that part of Big Sky which is located in Gallatin County is in the Ophir School District No. 72 and in the Bozeman High School District. Since the Mountain Village is within the Madison County School District No. 55 but geographically isolated from Ennis, Madison County pays the tuition for children attending Gallatin County Schools.

About half of the Ophir School budget is obtained from levies on property in Gallatin County and the balance comes from the state general fund and certain earmarked funds, interest, and income from school lands. While the taxable valuation of property in the Ophir district rose 384 percent between 1970-75, the total Ophir school budget increased 6.5

times. (14) However, there is a time lag between the time improvements on the land are made and the time they appear on the tax rolls. The influx of new people in the area required that the school be expanded from one room to four rooms. This expansion and the increased enrollment caused the school budget to increase faster than the revenue provided by the tax base. An emergency fund was provided by the State and the mill levy has been increased.

Prior to the rapid development of the West Fork the Canyon was patrolled by a sheriff's deputy. At present, one full-time sheriff's deputy lives in the West Fork and patrols the canyon area at a cost of about $12,000 per year. This cost is shared by Gallatin County, Madison County, and the U.S. Forest Service. Big Sky of Montana, Inc. also provides a security force for the Big Sky complex.

N. TRANSPORTATION

Gallatin Canyon is served by a variety of means of transportation, which includes railroad, air, bus, and automobile. However, access to the Gallatin Canyon and the West Fork area is limited to the highway system of U.S. 191 and U.S. 191 Spur.

The Burlington Northern, Inc. has a major east-west mainline through the center of Gallatin County connecting Bozeman, Belgrade, Manhattan, and Three Forks. Amtrack passenger service also serves Bozeman, using the Burlington Northern, Inc. line. The major airport is Gallatin Field, located between Bozeman and Belgrade. This airport is served by two commercial airlines which provide daily north-south and east-west connections. The Yellowstone Airport, located two miles north of the town of West Yellowstone, is open from May to October, with commercial service by two airlines.

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14) Myrick and Thompson. Pg. 29 to 32.

Interstate 90 is the major east-west highway through Montana and parallels the railroad through Gallatin County. Bozeman is served by commercial bus service following the Interstate 90. Yellowstone Park Lines, Inc. operates a regular bus service between Bozeman, Gallatin Airport and West Yellowstone, with stops at Big Sky's lower and upper villages.

U.S. 191 is a paved, two-lane primary all-weather highway running from the Montana-Idaho border through West Yellowstone and the Gallatin Canyon to Bozeman, where it intersects with Interstate 90. It serves as the west entrance to Yellowstone National Park at West Yellowstone.

The major use for U.S. 191 has traditionally been by tourists and recreationists as an access to Gallatin Canyon and Yellowstone Park, and also as a truck route from eastern Montana south. Peak traffic occurs during the summer months, with the Bozeman-Gallatin Gateway sections and the sections around West Yellowstone having the highest volumes.

The U.S. 191 Spur started out as a series of U.S. Forest Service logging and access roads in the West Fork drainage. This system of roads provided the necessary access for ranching, timber harvesting, fire protection, and recreation. However, they were designed and maintained for seasonal use only, with little or no surfacing.

In 1971, work started on rebuilding the logging road. The lower three miles were built to Montana Department of Highways' Standards, except for width, but was not paved. This portion of the spur is presently maintained by the Montana Department of Highways. The upper 6.1 miles of road has been improved by Big Sky of Montana, Inc. Some of these improvements and alignment changes were made according to the initial Department of Highways' design. This portion is not surfaced and is inadequate for

present traffic volumes

III. PROBABLE IMPACTS OF THE PROPOSED ACTION ON THE ENVIRONMENT

A. PRIMARY IMPACTS

SOCIO-ECONOMIC:

The major impact of this project would be to provide a safe and efficient highway for the traveling public. This would be accomplished by utilizing highway design procedures which will minimize the environmental impacts of a road in the geologically fragile West Fork area. The traveling public and the present and future residents of the West Fork would benefit as a result of the proposed improvements.

Improving the existing road would provide an adequate connection between the numerous recreational areas at the two Big Sky Villages and the educational, governmental, religious, shopping, and transportation facilities at Bozeman and West Yellowstone. Access to public and private land in the West Fork would be greatly improved.

The U.S. Forest Service and Burlington Northern have land management plans for the West Fork area which would be aided by the improved road.

The Forest Service has recommended five access points for its existing transportation facilities. These are:

Andesite Road No. 2657, Forest Service-Burlington Northern cost-share road provides access to Burlington Northern and Big Sky land; also services Camper Village and Trailer Village. Station 177±.

Loop Road No. 166B, East Junction, Forest Service-Burlington Northern cost-share road. Provides access to Forest Service and Big Sky land, as well as to an important Forest Service trail to the Spanish Peaks Primitive Area. Station 240±.

Loop Road No. 166, West Junction, Forest Service-Burlington Northern cost-share road. Provides access to Burlington Northern, Forest Service, and Big Sky land. Station 320±.

Beehive Trail No. 40 - Forest Service trail - provides access to National Forest land in Beehive Basin. Near Station 480±.

Middle Fork Road No. 166 - Forest Service road. Continues from the end of the highway project to National Forest land in Section 24, T. 6S, 2E. A Forest Service trail leaves the road and serves the Jack Creek drainage. At Station 480±.

The improved access to the recreational development would increase the desirability of developing private land adjacent to the Spur. The improved facilities would also benefit those who have jobs at Big Sky. All of these road users are now paying state and federal gas taxes for an inadequate facility. The elimination of the dust, mud, chuckholes, siltation of streams, and reduction of vehicle wear and tear are additional positive effects of this project.

No displacement of existing homes or businesses would be required since the original road was developed in conjunction with the other developments of Big Sky and the proposed improvements would, for the most part, follow the existing road alignment. Minor changes in proposed residential lots near Beehive Creek may be necessary.

The project right-of-way does not include any park, recreational area, wildlife or waterfowl refuge, or historic site that is listed in the National Register of Historic Places and the supplement thereto, or in Montana's Historic Sites Compendium (see Appendix F). An archaeological survey over the length of the project was conducted by the University

of Montana. The survey yielded seven archaeological sites which were open, seasonal campsites. Some artifacts were found, but no associated cultural evidence was found. The Montana Department of Highways has a continuing agreement with the University of Montana which provides for investigation and preservation of any artifacts discovered during road construction.

CONSTRUCTION:

Approximately 168 acres would be used for the project right-of-way. Forty-six acres were acquired prior to the lower three-mile grade/gravel contract and approximately 43 acres of the existing upper road right-of-way will be useable. Of the 168 acres, about 60 acres were grassland and 108 acres are timbered. A reduced standard road width is being proposed to minimize the amount of road scars. Construction would require the removal of some vegetation; however, construction on the existing alignment and reduction of the vegetation clearing width would minimize the aesthetic impact.

All areas disturbed by construction would be revegetated to reduce erosion and improve aesthetics. Some erosion will occur during construction and continue until permanent vegetation has been established. Initial seeding would be evaluated in subsequent years; remedial action such as reseeding and fertilizing to increase plant vigor may be necessary. The use of berms, dikes, dams, sediment basins, slope drains, energy dissipators, mulches and mats, in addition to protective ground cover, would further reduce erosion on areas exposed to concentrated flows of surface water.

The proposed alignment would cross landslide-prone formations, some of which are presently active. The topography and the required road grade make it impossible to avoid all of the unstable areas; however, design

features such as surface and subsurface drainage and minimum cut and fill sections would minimize the effects of crossing these areas.

The surface runoff pattern of the area traversed by the project would be changed by concentrating runoff at roadway cross drains. Although alteration of funoff is an essential consequence of any change to the natural topography, changes in runoff resulting from this project would be minimized by following the existing roadway whenever practicable and by ample use of cross drains.

Installation of drainage structures at stream crossings will result in temporary disruption of the stream channel, with an increase in turbidity and siltation. This would be harmful to the fishery in the strea. Channel changes would be confined to monor modifications at the inlets and outlets. A temporary crossing structure or a detour using interior roads of the Meadow Village will be required at the Middle Fork of the West Fork crossing during construction to maintain traffic movement to the Mountain Village.

Highway construction would have a localized impact on the groundwater table and flow. Short term changes in groundwater quality can also be anticipated. However, these effects are only local and none are considered to be of such magnitude to require remedial action.

There will be an increased risk of man-caused fires during the construction of the project. The contractor will be required to meet state fire laws, with the Forest Service being the responsible agency for inspection and control of wildfires in the area.

The disposal of road cleared slash, while limited in volume, also poses a fire risk. Disposal can be accomplished by burning, chipping or burying. Disposal by fire would require a permit from the Forest Service who would also provide technical advice to the contractor.

Deicing chemicals will not be used on the Spur during maintenance; however, a limited amount of salt is applied to gravel/sand stockpiles to retard freezing.

During the construction phase, there would be some disruption of traffic. Detours would be used and there would probably be short time delays for traffic.

The abandoned portions of the existing road will be obliterated. Obliteration consists of filling the old ditches, contouring to merge with the contour of the adjoining land, removal of old structures, rough grading the old road surface, with harrowing, smoothing and seeding.

WATER QUALITY:

The construction of this project will result in some slight water pollution, as stated, but water quality after construction should improve over the present situation. Efforts will be made to keep this pollution to a minimum by requiring the contractor to adhere to all state and national laws regarding this matter, and also by requiring him to follow the Montana Department of Highways' Standard Specifications and Special Provisions pertaining to water pollution.

The plans for this project and the contractor's construction procedures will be reviewed by and necessary permits or authorizations obtained from appropriate agencies, as discussed below, to insure compliance with the Montana Water Quality Standards, Montana Stream Preservation Act, and the Federal Water Pollution Control Act Ammendments of 1972 (FWPCA).

1. Montana Department of Health and Environmental Sciences - (DHES)

The DHES must review and authorize any highway-related construction activities which may result in short-term increases in turbidities which will exceed specific water quality standards. The DHES must also issue

permits for any activity, such as dewatering a cofferdam, which would result in a point source discharge of pollution. This latter review process was initiated as a result of Section 402 of the FWPCA and is administered by the DHES through the Montana Pollutant Discharge Elimination System Program. In the authorizations and permits issued by the DHES, consideration is given to and limitations may be set concerning increases or reductions on the naturally occurring levels of turbidity, temperature, color, dissolved oxygen, hydrogen ion concentration, sediment, and toxic substances of the stream.

2. Montana Department of Fish and Game (DF&G)

Plans for all highway-related construction activities which may alter, damage, or obstruct the naturally existing form of any stream or its banks or tributaries in any way must be reviewed and approved by the DF&G. The DF&G also reviews proposed procedures for construction activities in coordination with the DHES prior to the DHES issuing an authorization for the proposed procedures.

3. U.S. Army Corps of Engineers

On July 1, 1977, streams in this area become covered by the rules and regulations issued by the Corps for administration of Section 404 of the FWPCA. Under these regulations, proposed discharges of dredged or fill material in streams or adjacent wetlands must be reviewed by and a permit issued by the Corps of Engineers. Prior to issuing a permit the Corps must receive certification of water quality from the DHES as related to the proposed discharge of dredged or fill material. In this certification, consideration is given and restrictions may be set on increases or decreases in those naturally occurring conditions listed under (1) above.

AIR:

Air quality will not be a major problem on this project if the roadway is surfaced, although there is a dust problem at present as a result of the gravel roadway. The construction process will probably add to the dust for a short time but surfacing will eliminate the current roadway dust problem. This project is a low-volume facility, defined by the Environmental Protection Agency (EPA) and Federal Highway Administration (FHWA) as having an increase of under 10,000 vehicles per day within ten years of modification. The FHWA's "Simplified Analysis Technique for Estimating Carbon Monoxide Concentrations Near Highway Facilities" was used to estimate the CO concentration for an initial worst case, based on the most adverse wind, stability and topography conditions. Using these conditions and the estimated hourly traffic volume of 550, a concentration of 1.0 parts per million (PPM) is predicted. This is not considered significant when compared to the National Primary Ambient Air Quality Standard for CO of 35 ppm.

While EPA regulations focus on CO as the main cause for concern, the need to maintain national air quality standards for photochemical oxidants and nitrogen dioxide is also recognized. However, EPA standards call for checking these pollutants for highways with anticipated average volumes of 50,000 or more vehicles per day, or modifications that will result in an increase of 25,000 vehicles per day within 10 years. Since the projected traffic of 3,321 ADT for the lower three miles in 20 years does not approach the EPA standards, photochemical oxidants and nitrogen dioxide are not anticipated to have significant impacts on air quality.

This project would not conflict with the State's plan for achieving federal ambient air quality standards and the Department of Health and Environmental Sciences has indicated that the project will not have a significant adverse effect on air quality in the area. (See Appendix F)

FISH AND WILDLIFE:

While the major wildlife winter range or migratory routes are not crossed by the U.S. 191 Spur, the loss of habitat will occur as a result of the increased right-of-way. Presently this habitat is marginal because of its close proximity to the existing alignment. There will be an increase in traffic, but with low design speed (35 mph), a problem with collisions between vehicles and big game is not anticipated. However, if collisions are found to be a problem, signs would be installed to warn motorists of game crossings.

With the increase of people in the area as a result of the improved access, hunting and fishing pressure can be expected to increase in the West Fork and Ulreys Lakes, and recreational enjoyment derived from individual forms of recreation may be reduced. Studies have not been conducted which predict the abilities of these waters to adjust to an increase in fishing pressure.

NOISE:

Noise levels would be higher than at present. However, taking into account the low-density of seasonal and permanent dwellings and the projected traffic, the increase in the noise levels would not reach the design noise levels as set by the Federal Highway Administration. FHWA's nomograph for predicting highway noise levels was used to determine future noise levels. Critical points considered were the Big Sky of Montana, Inc. Information Center, residences at Station 52+00, and the Medical Clinic. All noise levels that would be generated were below the 70dBA standard for motels, schools, churches, hospitals and parks, except at Big Sky Information Center, which is below the 75dBA standard for developed lands not classified in the 70dBA or below standard. The dBA levels are calculated at the right-of-way limit.

B. SECONDARY IMPACTS

The secondary impacts of this project can be correlated with the impacts of the recreational development. The initial impact of the Big Sky complex was to accelerate the change in land use that was taking place in the Gallatin Canyon. A new community was formed with new jobs and recreational facilities, and other public services. The rapid growth of the West Fork area has required an initial public expenditure for governmental services above that generated by the existing taxes, but the development can be expected to produce sufficient tax revenues to cover public expenditures. (15).

With the growth of the Gallatin Canyon, additional highway traffic is expected on U.S. 191. Figures I through IV illustrate the annual daily traffic figures by year, from 1965 through 1975, for four counting stations on U.S. 191. The stations range from 12.5 miles north of the U.S. 191 Spur junction to 15.6 miles south of the Spur junction. Also included is an estimated pre-Big Sky traffic projection represented by a dashed line. The difference in the two lines represents the approximate impact of the West Fork traffic on U.S. 191.

In Figure I, both local Bozeman oriented and West Fork traffic is included and when compared with Figure II, shows the general increase of traffic closer to Bozeman.

Figure II represents traffic just north of the U.S. 191 Spur junction. While the increase in traffic as a result of the Big Sky development is easily noted, traffic has declined since 1974. This is probably due to the same factors as stated for the decline of traffic on the U.S. 191 Spur: decline of construction traffic, established bus service, longer stays at Big Sky, and reduction of local sightseers.

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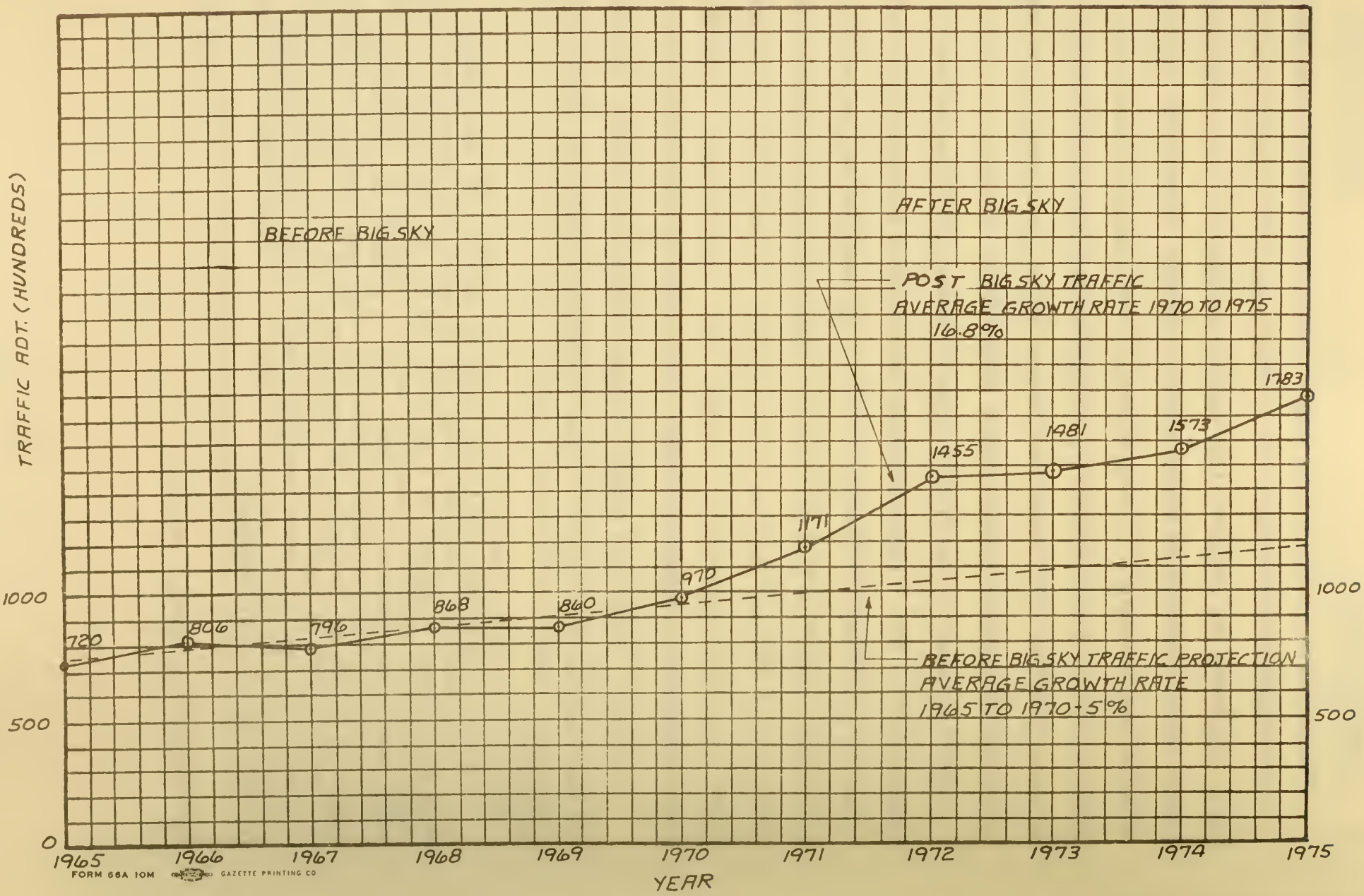
15) Thompson and Myrick. Pg. 39

FIGURE I

STATION 100 U.S. 191 12.5 MILES NORTH OF U.S. 191 SPUR JCT.

STATE HIGHWAY COMMISSION OF MONTANA

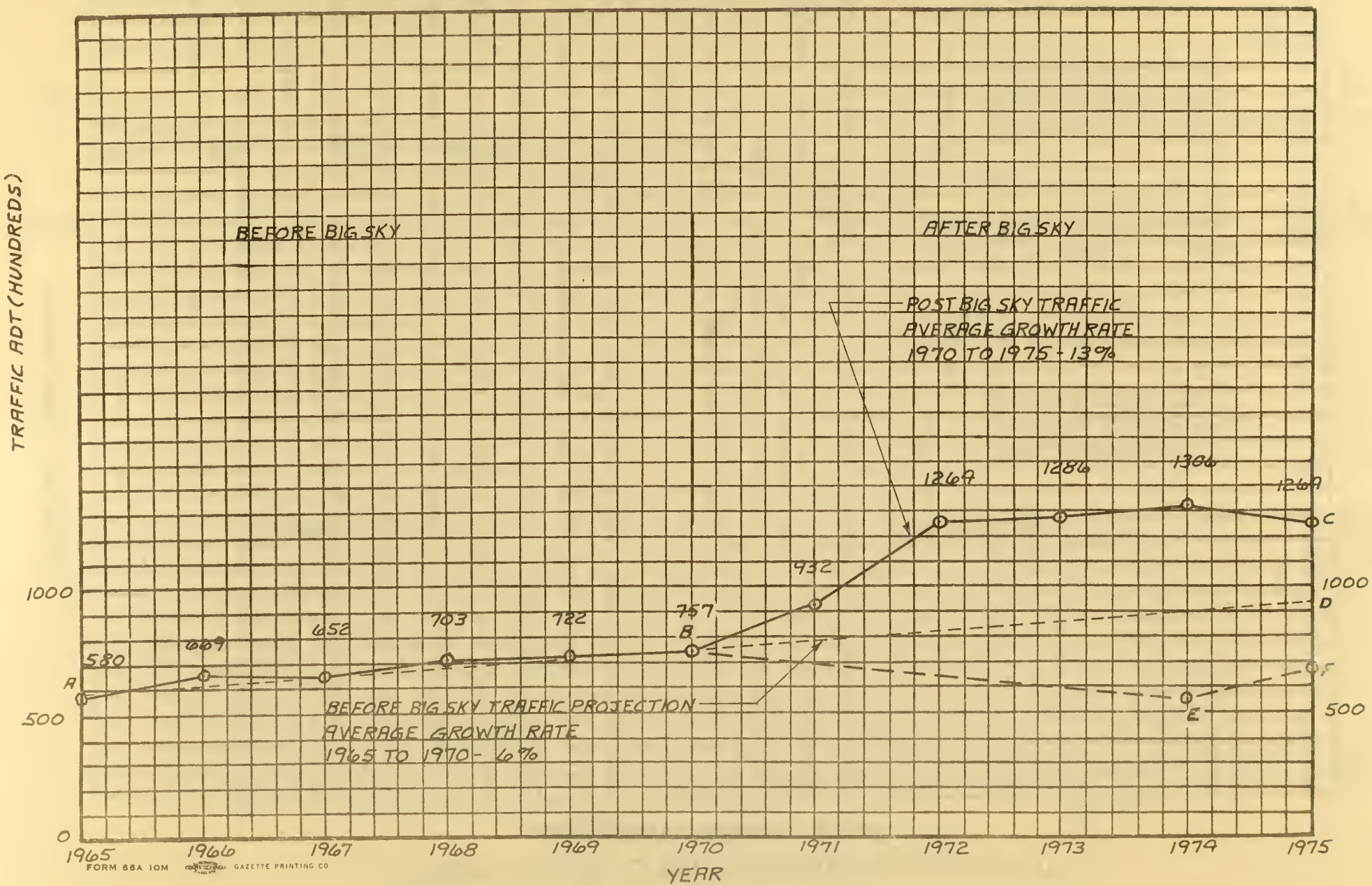


FORM 66A 10M GAZETTE PRINTING CO

FIGURE II

U.S. 191 - U.S. 191 SPUR JCT. TO 12.5 MILES NORTH OF JCT.

STATE HIGHWAY COMMISSION OF MONTANA

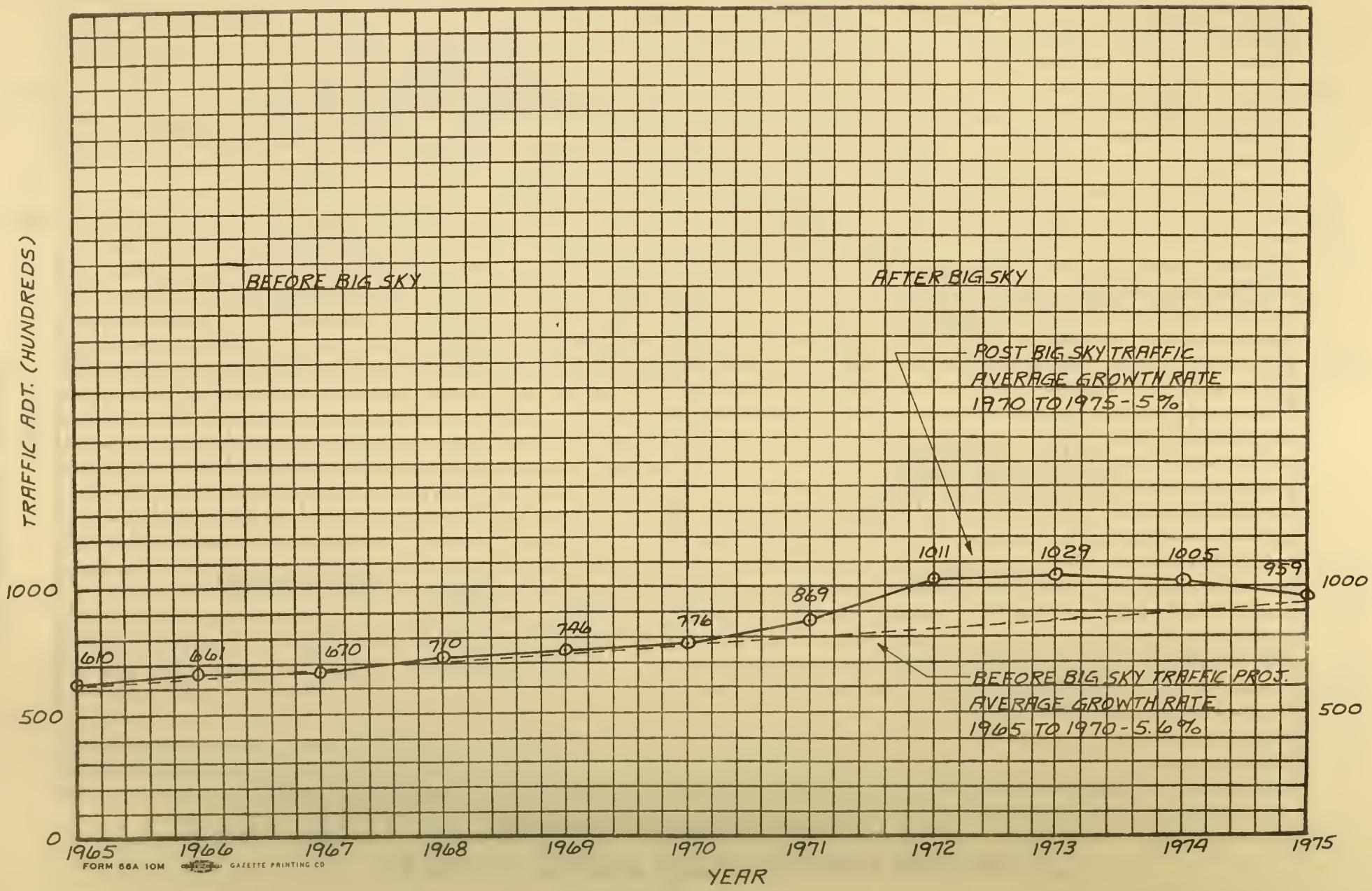


FORM 66A 10M GAZETTE PRINTING CO

FIGURE III

STATION 2 U.S. 191 0.5 MILES SOUTH OF U.S. 191 SPUR JCT.

STATE HIGHWAY COMMISSION OF MONTANA



FORM 66A 10M GAZETTE PRINTING CO

Figure III shows traffic on U.S. 191 one-half mile south of the Spur junction. Again the declining trend is noted as in Figure II, from 1974 to 1975.

Figure IV represents traffic on U.S. 191 15.6 miles south of the Spur junction. The effect of the Big Sky development has had little impact on U.S. 191 this far south of the Spur junction, but the effects of the energy and inflation crisis have resulted in an actual decline in traffic below the pre-Big Sky traffic projected line. Without the development of Big Sky, the energy and economic crisis would have had a decreasing effect on the U.S. 191 traffic.

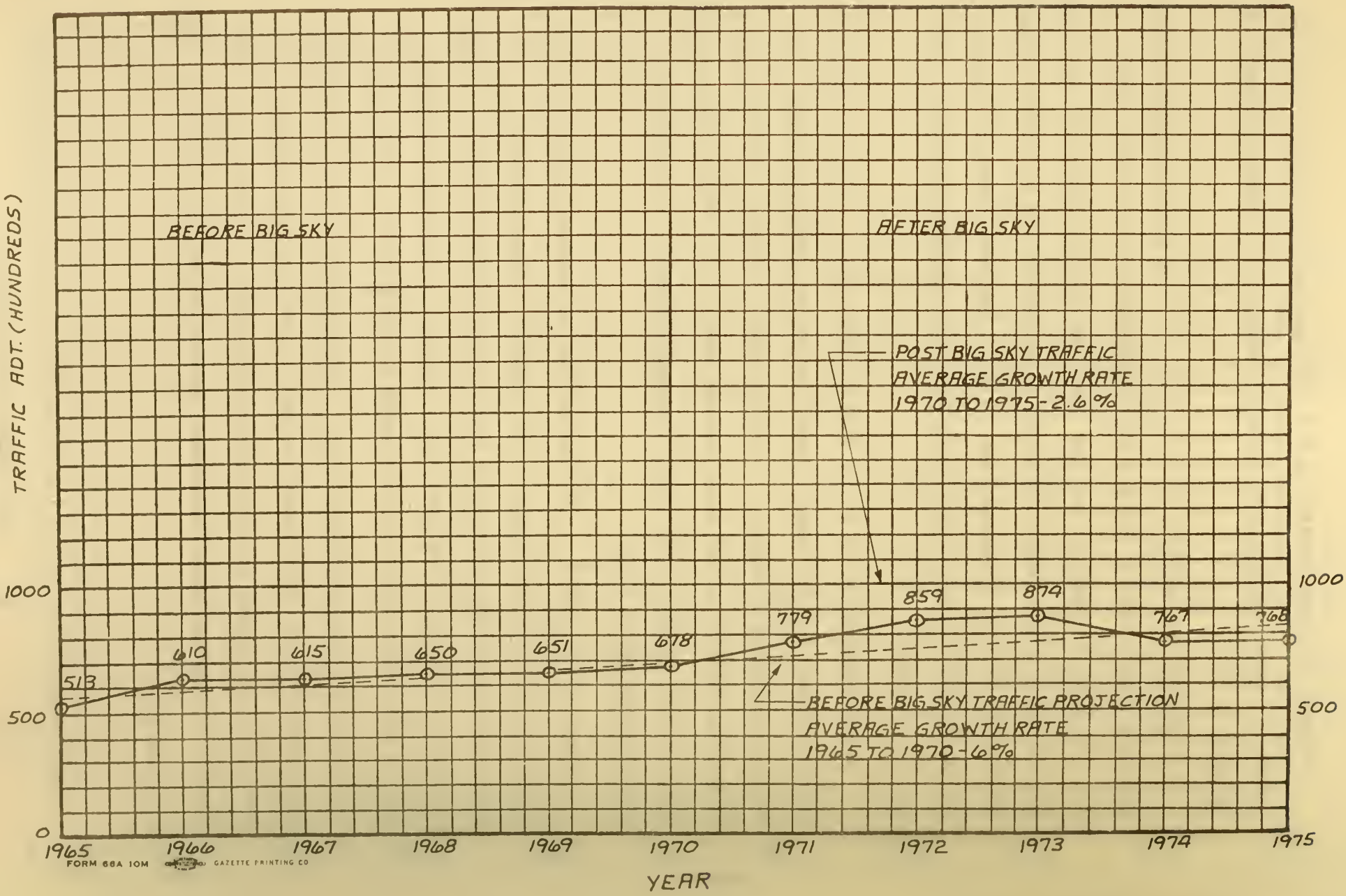
Distribution of the U.S. 191 Spur traffic onto U.S. 191 is based on turning movement counts taken by the Planning and Research Bureau of the Montana Department of Highways. Turning counts indicated that 69 percent of the Spur traffic either came from the north on U.S. 191 or turned north from the Spur onto U.S. 191, and 31 percent turned to or came from the south portion of U.S. 191.

Based on the 1996 U.S. 191 Spur traffic projection of 3321 ADT, the portion of U.S. 191 anticipated to be impacted the most by the U.S. 191 Spur traffic would be the section just to the north of the Spur junction. Assuming 69 percent of the Spur traffic turned or came from the north, (3321 X .69) 2300 vehicles per day would be added to U.S. 191 by 1996.

Also, by using the percent of U.S. 191 Spur traffic which turned or came from the north, and subtracting this traffic from the existing U.S. 191 counts, the actual pre-Big Sky U.S. 191 traffic projection line might actually be represented as the dashed line BEF rather than line BD as shown in Figure II.

FIGURE IV

STATION 4 U.S. 191 15.6 MILES SOUTH OF U.S. 191 SPUR JCT.
NORTH YELLOWSTONE PARK BOUNDARY
STATE HIGHWAY COMMISSION OF MONTANA



FORM 66A 10M GAZETTE PRINTING CO

Figure V presents the 1965, 1970 and 1975 ADT counts shown in Figure II. Also illustrated is the projected pre-Big Sky traffic projection line BDH and pre-Big Sky energy impact line BFG. Line BDH was determined by straight line projection of line AB. This line shows a projected traffic volume of 1650 ADT in 1996 without the West Fork development.

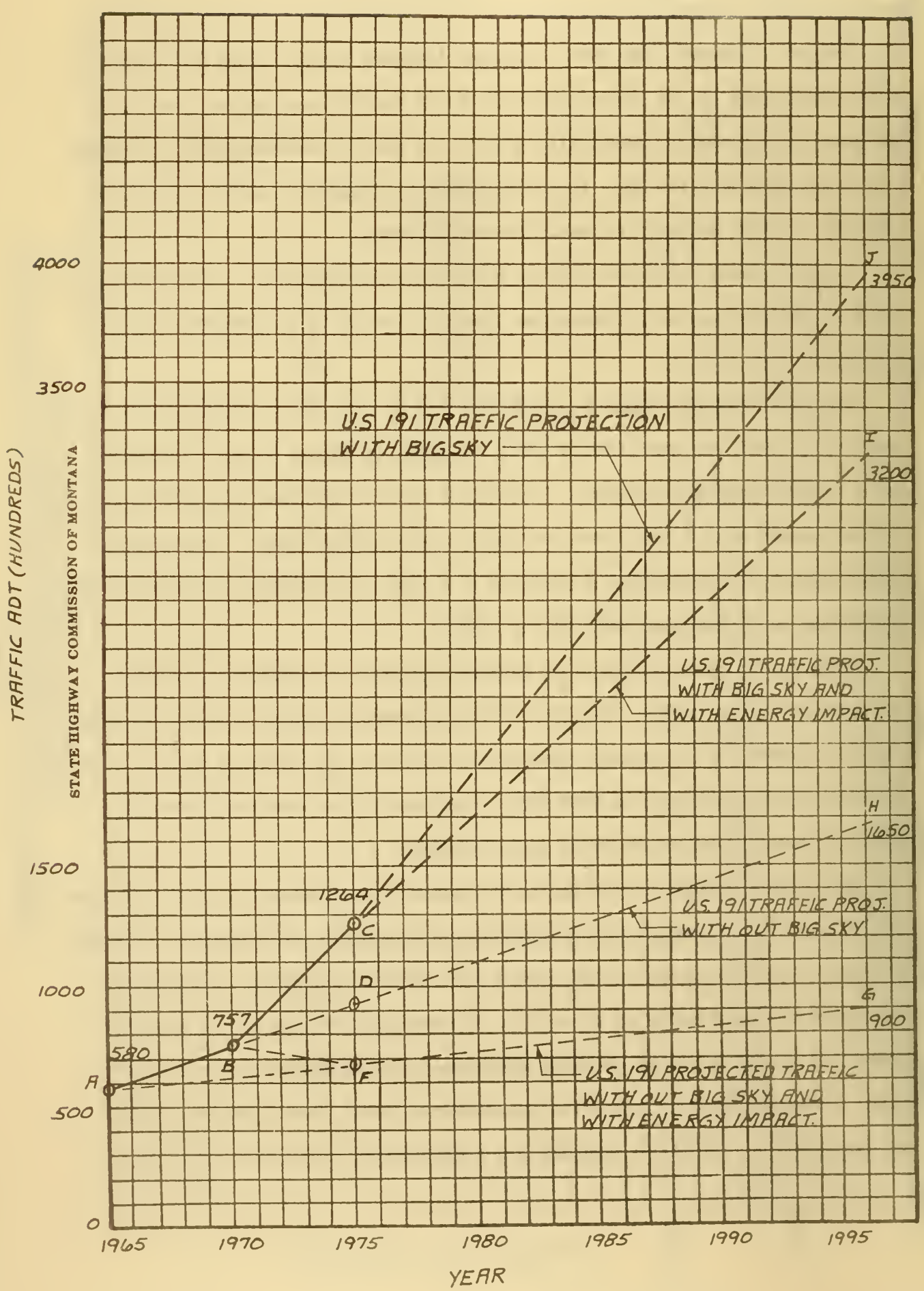
Line FG shows projected traffic on U.S. 191 without West Fork development, but with the energy impact reduction shown. Line FG is a straight line projection of line AF.

The West Fork development added 2300 ADT to U.S. 191 traffic north of the junction in 1996 and when this traffic is added to points G and H, points I and J respectively are generated. Lines CI and CJ represent the anticipated traffic growth on U.S. 191 with and without the energy impact. Assuming no energy impact, the projected traffic on U.S. 191 as a result of the West Fork development will approach 4000 ADT by 1996.

Capacity is based on level of service, percent of commercial traffic, terrain and roadway width. Based on rolling terrain, lowest level of service, a 28-foot width and 14 percent commercial vehicles, the capacity of U.S. 191 is 1088 vehicles per hour or 6600 ADT. The capacity of certain subsections would be lower depending on grade and alignment.

While the findings of the Gallatin Canyon study indicate that the development of the resort complex has not produced substantial environmental problems by itself, the highly-publicized resort will attract secondary development, much of which could build up along U.S. 191 and the portion of the Spur not controlled by Big Sky, Inc. without adequate land use controls. Unlimited growth of poorly planned satellite developments could lead to major impacts and overcrowding. Wildlife habitat and recreational activities, such as

FIGURE V



FORM 66A 10M GAZETTE PRINTING CO

hunting and fishing that depend on semi-primitive surroundings, would be the first to suffer.

Frequent human disturbances of the existing summer and winter ranges could preclude use of these by elk. One-half of the present winter range could be lost by unregulated maximum development of private land.

It has been determined that the ease of access is important in attracting fishermen to a particular section of stream. Consequently, providing easier access to the streams in the West Fork drainage may tend to increase fishing pressure on them.

In the event that transportation facilities become overtaxed, some form of mass transportation could become necessary, but expansion of U.S. 191 in the Gallatin Canyon to a four-lane highway would not be recommended for environmental and construction reasons. The extent of development is going to depend on the success of Big Sky, in addition to a number of currently intangible national and local factors. Some of these factors are the demand for recreational facilities, availability of energy, interest rates, and land use policies, any of which will have a significant effect on the extent of development in the Gallatin Canyon and the West Fork area.

IV. ALTERNATES

When this project was discussed in 1972 in the first environmental impact statement, six alternates were considered.* The preferred alignment chosen at that time was a combination of two alternates which primarily followed the existing road, except around the active slide and through the Beehive Creek drainage. This alignment was chosen because it provided the maximum use of the existing road, the land use that has developed around the road, and a minimum of environmental and geologic problem areas. Big

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* "Final Impact Statement, Project F - 20 (1), U.S. 191 Spur. FHWA - Mont - EIS - 72 - 01 - F." Montana Department of Highways. 1972

Sky of Montana, Inc. has since made improvements to the original logging road based on the preferred alignment. However, the improvements did not include going above the active slide or crossing Beehive Creek with a fill. The alignment proposed at this time is basically the same except that two design alternates are proposed for the active slide and the Beehive Creek crossing. Preliminary cost estimates for construction alternates are in Appendix D.

A. ALTERNATE NO. 1

The new proposed alignment follows the existing road from the junction of U.S. 191 and the U.S. 191 Spur to approximately Station 270±. Between Stations 270± and 322± two design alternates are being considered because of an active landslide at approximately Station 285±. This slide is quite extensive, 300 feet wide and 400 feet long, but is only a small portion of a very large old stabilized slide that extends up the hill a considerable distance. Both proposed sub-alternates will pass through the old slide.

1A: Sub-alternate 1A would essentially follow the existing road through the active portion of the slide. The advantage of this would be that the existing roadway scar would be followed as closely as possible, reducing the amount of new scar and timber removal.

This sub-alternate would present geologic complications and would require special construction features to construct a stable roadway. The water table in the area was found to be within two to five feet of the surface, year around, and several springs exist above and below the roadway. Highly weathered bedrock lying immediately below the surface would require sub-excavation and back filling, with drains and ditches installed. The alignment, as shown in Exhibit C, would cross the slide at a skew. This would minimize the amount of cut in the unstable backslope and shorten

the length of the fill section.

1B: This is the 1972 proposed alignment which would climb above the active slide area, pass above the Medical Clinic, and contour around to a point where it would rejoin the existing roadway at about Station 322±.

Some special design features would be required where the roadway crosses the old slide to ensure its stability, but the area does not present the geologic problems associated with 1A. Approximately 12 acres of new right-of-way through timber would be required by this sub-alternate.

From Station 322±, the proposed alignment follows the existing road up to Station 445±. Between Stations 445± and 460± there are two sub-alternates under consideration for crossing Beehive Creek.

1C: Sub-alternate 1C would leave the existing road at Station 445± and cross the Beehive Creek drainage with a 60-foot high earth fill and a 60-foot cut through the ridge west of Beehive Creek. 1C would shorten the existing road by one-quarter mile and reduce snow removal and maintenance costs. This alignment would increase road user safety, improve traffic flow, and provide a right-angle access to proposed residential lots at Beehive Creek through the use of the existing road. Construction delays would be minimal to road users.

Aesthetically, the new cut and fill would be less desirable, but with revegation the effect could be reduced somewhat. During the construction phase and until sufficient ground cover is established, there would be some additional erosion and siltation to Beehive Creek, the West Fork, and the Gallatin River.

1D: Sub-alternate 1D would follow the existing road as it contours through the Beehive Creek drainage and around the ridge west of Beehive Creek. This sub-alternate, in making use of the existing scar, would not

require any significant amount of new land for construction. The advantage of this alignment would be to maintain a more natural contour of the land in addition to a single crossing of Beehive Creek.

Using this sub-alternate would restrict the horizontal alignment making this location less desirable from a safety and traffic capacity standpoint.

From Station 460± to the end of the project at Station 480±, the alignment follows the existing road.

B. NO-IMPROVEMENT ALTERNATE

The no-improvement alternate would leave the existing road as is, with the State of Montana responsible for only maintaining the lower three miles, which has cost approximately $7,000 per year. In general, such costs can be expected to increase yearly. It is doubtful that the road would be improved beyond its present condition without state or federal funds, although some type of low-type bituminous surface could be constructed by the local populace.

The adoption of the no-improvement alternate would mean that public funds would not be spent for construction and there would be no disruption to the area due to the construction of an improved road.

The primary disadvantage of the no-improvement alternate would be the use of an inadequate facility by increasing numbers of people, which would compound the problems that exist today. A large traffic generator exists in the recreational complex with a permanent population and public services that are normally associated with a community. The resultant dust, mud, and erosion would be substantial and detrimental to the West Fork and to the people of the area.

By adopting the no-improvement alternate, government would fail to live up to its normal and customary obligation of using funds generated to the Highway Trust Fund from gas taxes to provide reasonable transportation

facilities to communities and highway users.

C. SELECTED ALTERNATE:

As a result of the private and public agency comments on the draft Environmental Impact Statement and the public hearing held in Bozeman, Montana on August 3, 1976, the Montana Department of Highways is recommending that the U.S. 191 Spur be improved using the Alternates 1A and 1D. This route is the existing alignment or PTW (present traveled way).

The no-improvement alternate was considered, but since there is a major traffic generator and a community does exist, and the condition of the existing road warrants improvement, such action would not be in line with the customary and normal function of providing transportation facilities to communities and highway users.

Alternate 1A was selected because no new construction zone of scars would be required and the active slide would be rehabilitated and stabilized.

Alternate 1D was selected because it would use the existing road and would not require a large cut and fill to cross Beehive Creek.

While both 1A and 1D do not have design advantages over the other alternates, they are aesthetically better suited for the existing surroundings.

V. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The adverse environmental impacts of construction, such as air, noise and water pollution, detours and time delays, will occur during and for a short time after construction. The 168 acres of grazing, timber and proposed residential land used in the right-of-way would be precluded from other uses. Noise levels, while within standards, are likely to increase as traffic increases. Subdivision and development along the project not controlled by the Big Sky of Montana, Inc. convenants may increase due to

the presence of an improved highway. An improved highway may also stimulate new construction on land already subdivided.

VI. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The short-term uses of the environment for this project will consist of disruption caused by the construction process. When the road is completed and vegetation reestablished, the project will provide a road that is safe, efficient, with stable slopes, proper drainage, and a minimum of environmental degradation.

The area is presently undergoing a change in land use. This change would be stimulated by the provision of a modern highway; however, the land use change is expected to continue if the highway is not constructed. Land use changes following implementation of the proposed improvement, regardless of the causal factor, could preclude future less limiting uses.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The land acquired for the right-of-way will no longer be available for timber production, livestock grazing, or wildlife habitat. The commitment of construction materials, money and labor is irreversible in that it cannot be used for another project at that time. Approximately 800,000 gallons of number two diesel fuel and 55,000 tons of bituminous materials would be used. The proposed improvement would reduce the construction monies available for other lower priority construction projects in Financial Districts 9 and 10.

There do not appear to be any major irreversible commitments of resources that would significantly affect the environment in the area of the project. Therefore, the use of the land, money, and materials is considered to be justified as it will provide a needed highway facility to

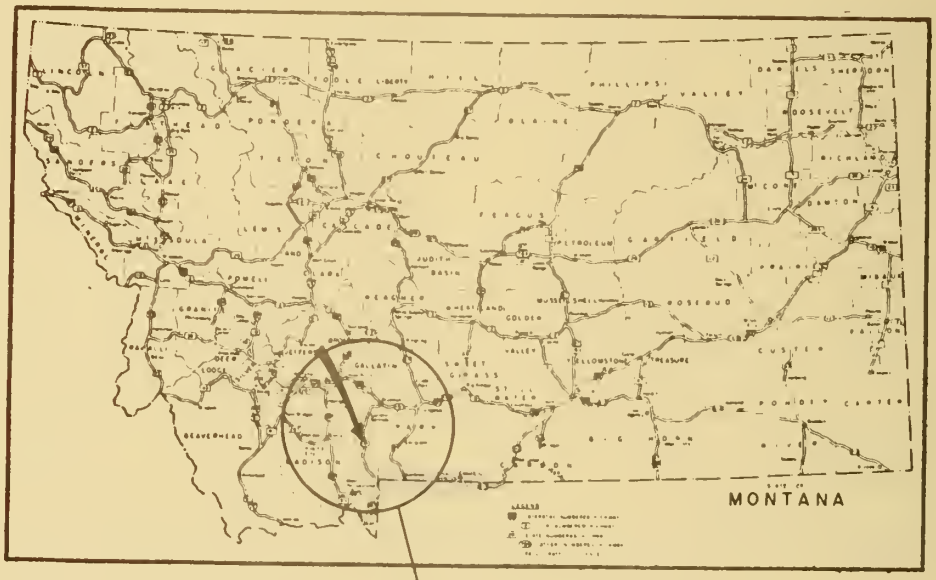
serve the traveling public.

The major land use changes involving the developments at the Mountain Village and Meadow Village have already occurred and are not considered major resource commitments of this project.

EXHIBITS

EXHIBIT A

LOCATION MAPS



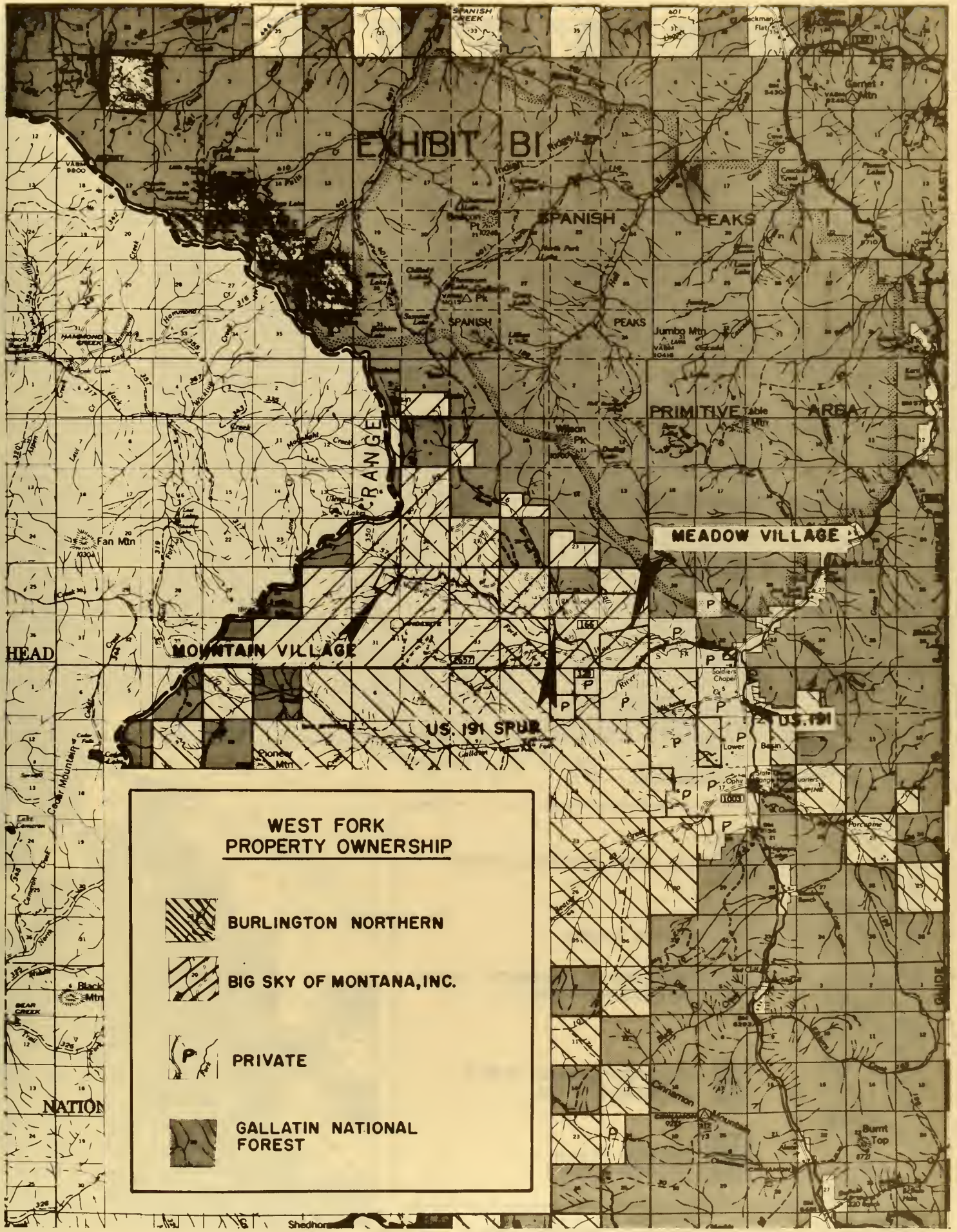


EXHIBIT B1
SPANISH PEAKS
SPANISH PEAKS
PRIMITIVE AREA
RANGE
MEADOW VILLAGE
MOUNTAIN VILLAGE
US. 191 SPUR
US. 191
HEAD
NATION
WEST FORK
PROPERTY OWNERSHIP
BURLINGTON NORTHERN
BIG SKY OF MONTANA, INC.
PRIVATE
GALLATIN NATIONAL
FOREST

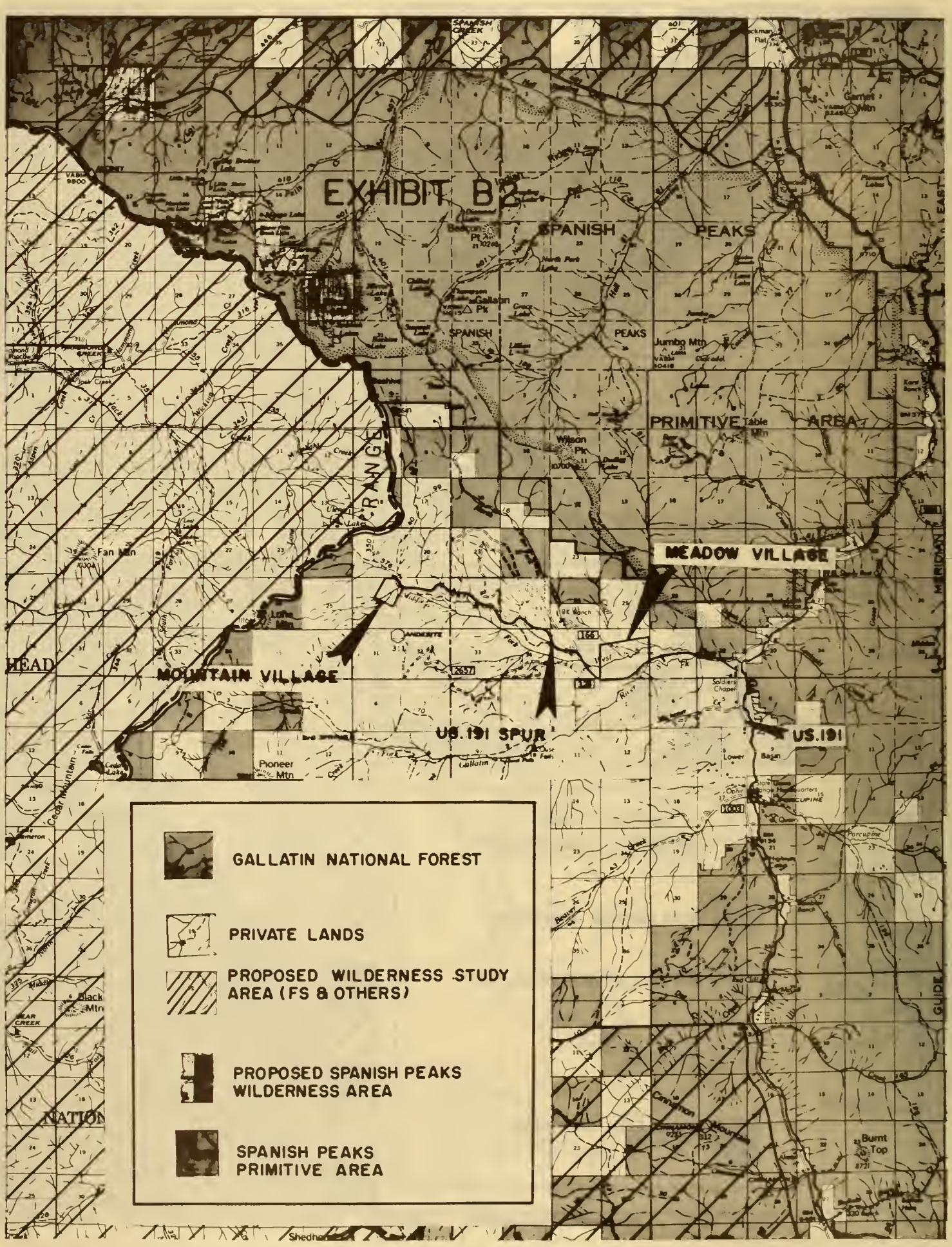


EXHIBIT B2
SPANISH
PEAKS
SPANISH
PEAKS
PRIMITIVE
AREA
MEADOW VILLAGE
MOUNTAIN VILLAGE
US.191 SPUR
US.191
GALLATIN NATIONAL FOREST
PRIVATE LANDS
PROPOSED WILDERNESS STUDY AREA (FS & OTHERS)
PROPOSED SPANISH PEAKS WILDERNESS AREA
SPANISH PEAKS PRIMITIVE AREA

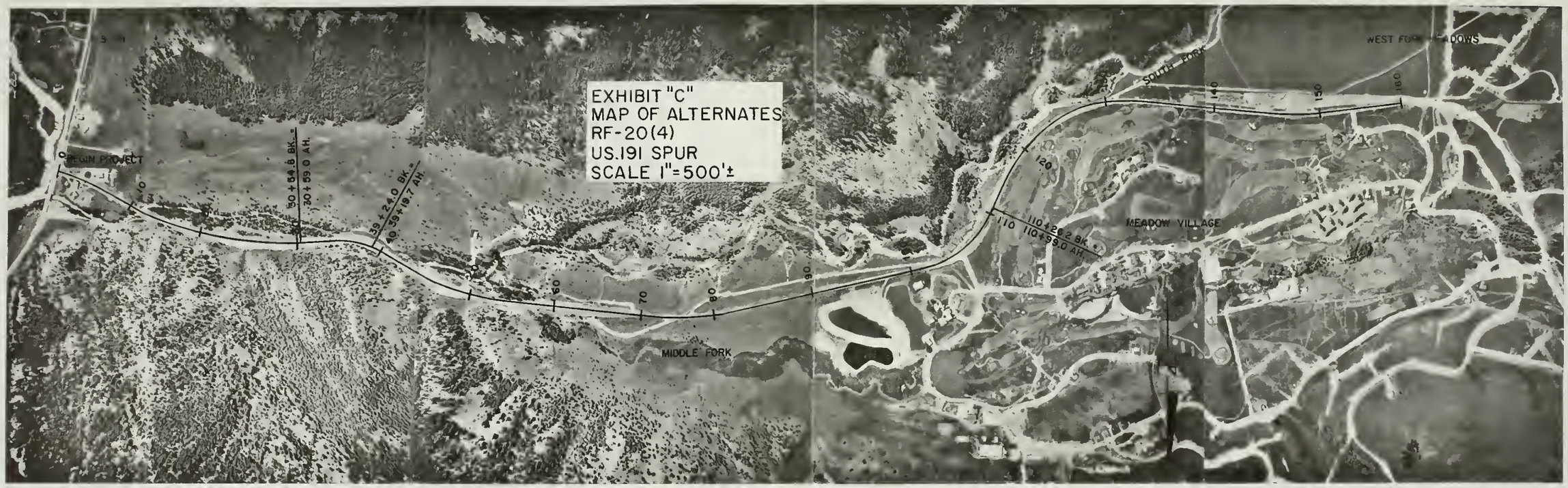


EXHIBIT "C"
MAP OF ALTERNATES
RF-20(4)
US.191 SPUR
SCALE 1"=500'±
BEGIN PROJECT
30+54.6 BK.=
30+59.0 AH.
39+24.0 BK.=
39+19.7 AH.
MIDDLE FORK
SOUTH FORK
MEADOW VILLAGE
110+26.2 BK.=
110+99.0 AH.
WEST FOR ADOWS
10
20
30
40
50
60
70
80
90
110
120
140
150
160

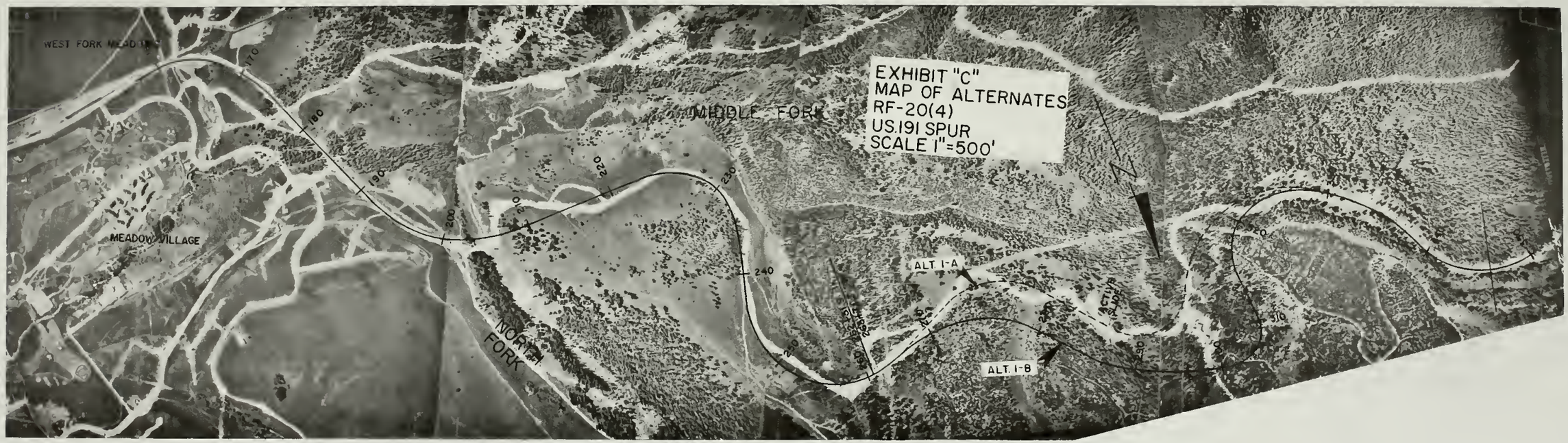


EXHIBIT "C"
MAP OF ALTERNATES
RF-20(4)
US.191 SPUR
SCALE 1"=500'
WEST FORK MEADOW
MEADOW VILLAGE
MIDDLE FORK
NORTH FORK
ALT. 1-A
ALT. 1-B
170
180
190
200
220
230
240
250
310

EXHIBIT "C"
MAP OF ALTERNATES
RF-20(4)
US. 191 SPUR
SCALE 1"=500'±
MIDDLE FORK
ALT. 1-C
ALT. 1-D
HIVE CREEK
END PROJECT
UPPER VILLAGE AREA
430
440
450
460
470
480
490

APPENDIX

APPENDIX A

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APPENDIX B

COMMON NAME	BOTANICAL NAME
TREES	
Whitebark Pine	Pinus albicaulis
Subalpine fir	Abies lasiocarpa
Engelmann spruce	Picea engelmanni
Lodgepole pine	Pinus contorta
Douglas-fir	Pseudotsuga menziesii
Cottonwood and Aspen	Poplus spp.
SHRUBS	
Willows	Salix spp.
Big sage	Artemesia tridentata
Snowberry	Symphoricarpos albus
Currants	Ribes spp.
Huckleberry	Vaccinium spp.
Elderberry	Sambucus spp.
Common juniper	Juniperus communis
Oregon grape	Berberis repens
Kinnikinnick	Arctostaphylos uva-ursi
SEDGES	
Elk sedge	Carex geyeri
GRASSES	
Idaho fescue	Festuca idahoensis
Bluegrass	Poa spp.
Alpine timothy	Phleum alpinem

APPENDIX B CONTINUED

COMMON NAME	BOTANICAL NAME
FORBS	
Sticky geranium	Geranium viscossissimum
Lupines	Lupines spp.
Waterleaf	Hydrophyllum capitatum
Dogtooth lilly	Erythronium grandiflorum
Yarrow	Anchillea millefolium
Wild onion	Allium spp.
Prairie smoke	Geum triflorum
Star flower	Lithophragma parviflora
Dock	Rumex spp.
Phlox	Phlox spp.
Low larkspur	Delphinium bicolor
Shooting star	Dodecatheon conjugens
Mountain Douglasia	Douglasia montana
Starry False Solomon's seal	Smilacina stellata
Cinquefoil	Potentilla spp.

APPENDIX C

COMMON NAME	BOTANICAL NAME
Elk	Cervus canadensis
Mule deer	Odocoileus hemionus
Moose	Alces alces
Bighorn sheep	Ovis canadensis
Mountain goat	Oreamnos americanus
Black bear	Ursus americanus
Grizzly bear	Ursus horribilis
Blue grouse	Dendragapus obscurus
Ruffed grouse	Bonasa umbellus
Rainbow trout	Salmo gairdneri
Cutthroat trout	Salmo clarki
Brown trout	Salmo trutta
Brook trout	Salvelinus fontinellis
Mountain whitefish	Prosopium williamsoni

APPENDIX D

Preliminary Estimate of Cost U.S. 191 Spur

			TOTAL COST
Surfacing lower 3.0 miles			$ 502,000

Alternate Costs Upper 6.1 Miles

		LENGTH	TOTAL COST
Slide area	1A	5,500 ft.	$ 618,000
	1B	6,500 ft.	682,000
BEEHIVE CREEK	1C	2,100 ft.	454,000
	1D	3,735 ft.	128,000

Construction costs upper 6.1 miles without alternates	$2,258,000
Total with Alternates 1A and 1C	3,329,000
Total with Alternates 1B and 1C	3,394,000
Total with Alternates 1A and 1D	3,002,000
Total with Alternates 1B and 1D	3,067,000

APPENDIX E

CONTRIBUTORS

Joe Armstrong holds a B.S. degree from the University of Montana in Geology. Mr. Armstrong is a registered Professional Geologist. Prior to joining the Department in 1960, he spent two years in the private sector.

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Earl W. Mayberry holds a B.S. degree in Geology from the University of Montana in addition to graduate work in geology. Mr. Mayberry spent five years with the federal government prior to joining the Department in 1966.

Gene McMahon holds a B.S. degree in Chemistry from Carroll College. Mr. McMahon spent two years in the private business sector prior to joining the Department of Highways in 1959.

Dale Ovitt holds a B.S. degree in Civil Engineering from Montana State University. Mr. Ovitt has four years experience in the private sector prior to joining the Department in 1975.

Carl S. Peil holds a B.S. degree in Civil Engineering from Montana State University. Mr. Peil is a registered Professional Engineer and has been with the Department since 1966. He presently serves as Manager of the Hydraulics Unit.

N. A. Rotering received an LLB degree, now Juris Doctorate, from Georgetown University. Mr. Rotering is a member of the Montana Bar, the District of Columbia Bar, U.S. Court of Appeals, the U.S. Supreme Court, and has practiced law in Montana since 1937. He has served as Administrator-Legal Division of the Department since 1969.

Kenneth F. Skoog holds a B.S. degree in Civil Engineering from Montana State University. Mr. Skoog is a registered Professional Engineer and was employed by the Department of Highways in 1964. He presently serves as Supervisor-Location and Road Design Section.

Bill Strizich holds a B.A. degree in Mathematics from Carroll College and a B.S. degree in Civil Engineering from Montana State University. Mr. Strizich is a registered Professional Engineer and has been with the Department since 1971. He presently serves as a hydraulics designer.

Wayne H. Walters received a B.S. degree in Civil Engineering from the University of Idaho. Mr. Walters joined the Department in 1964, is a registered Professional Engineer with training in air pollution associated with transportation facilities.

Ronald Williams holds a B.S. degree in Civil Engineering from Montana State University and is a registered Professional Engineer. Mr. Williams has done graduate work in engineering since joining the Department in 1966.

IMPACT EVALUATION GROUP

Department of Fish and Game

Department of Health and Environmental Sciences

Department of Intergovernmental Relations - Planning and Economic Development Division

Environmental Quality Council

Department of Natural Resources and Conservation

Department of Education - Montana Historical Society

Department of Highways

Federal Highway Administration

APPENDIX F

STATE OF MONTANA

DEPARTMENT OF

FISH AND GAME

Helena, Montana 59601
April 13, 1976

RE: U.S. 191
Big Sky Spur

Mr. H. J. Anderson
Montana Director of Highways
Helena, Montana 59601

Attention: Stephen C. Kologi

Gentlemen:

Thank you for your inquiry concerning historic sites in the vicinity of the proposed Big Sky Spur highway project. Our present statewide inventory lists no historic or cultural sites in the vicinity of the project. If the project consists of upgrading the present highway using the existing alignment then there should be no impact on any known or unknown cultural sites.

Thank you for contacting me.

Sincerely yours,

Ron Holliday

Ron Holliday
State Historic Preservation
Officer
Recreation and Parks Division

RH:DC:hm

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

Air Quality Bureau
Cogswell Building
(406) 449-3454

A. C. Knight, M.D.
Acting Director

MEMORANDUM

TO: R. E. Williams, P.E. DATE: January 21, 1976

FROM: R. Clark Neilson RCN

SUBJECT: Big Sky Air Quality

The Big Sky Spur Project should significantly improve air quality conditions, according to the Department of Health and Environmental Sciences' Air Quality Bureau.

Although no air sampling tests have been conducted, a field inspection August 2, 1974, revealed that without hard surfacing, the present volume of traffic and low annual rainfall result in an "unbearable amount of dust," a bureau official reported.

Federal Highway Administration standards recommend that unpaved roads which average more than 200 vehicles a day should be surfaced. The State Department of Highways said the daily traffic on the lower section of road averaged 853 vehicles per day in 1975, considerably above the federal average.

RCN:jms

Big Sky of
Montana
Realty, Inc.
P.O. Box 100
Big Sky
Montana 59716
(406) 995-4777

October 20, 1976

Mr. H. J. Anderson, Director
MONTANA HIGHWAY DEPARTMENT
Sixth Avenue and Roberts Street
Helena, MT 59601

Dear Mr. Anderson:

This is a letter to state our company's position on the right-of-way needed across our land for the US 191 spur to the Mountain Village.

At a recent meeting, our Directors did not change their 1972 decision to donate land, owned by this company, which is needed for right-of-way to construct US 191 spur to the Mountain Village.

We presume you will prepare the proper documents for this right-of-way as soon as possible and forward them to our office for review and execution.

Sincerely yours,

GUSTAV RAAUM
Chairman

/nw

ACT	INF	
		RETURN TO M & F
		MAY BE RETAINED
	/	DIRECTOR
		CENTRALIZED SERVICES
		ACCOUNTING
		DATA PROCESSING
		PLANNING & RESEARCH
		ENGINEERING
		PRECON BUREAU
		BRIDGE
		CONSTRUCTION
		MATERIALS
		PRECON SECTION
		RIGHT-OF-WAY
		MOTOR VEHICLE
		OTHER

BIG SKY
MONTANA

APPENDIX G

COMMENTS ON DRAFT STATEMENT AND RESPONSE

FEDERAL ENERGY ADMINISTRATION
REGION VIII
1075 South Yukon
P.O. Box 26247, Belmar Branch
Lakewood, Colorado 80226

HIGHWAY COMMISSION
RECEIVED
MAY 27 1976
HELENA, MONTANA

May 24, 1976

Mr. H. J. Anderson
Director of Highways
Montana Department of Highways
Helena, Montana 59601

Attention: Preconstruction Bureau

Dear Mr. Anderson:

The Federal Energy Administration (FEA), Region VIII, has reviewed the Draft Environmental Impact Statement for Highway Project No. RF-20(4), U.S. 191 Spur, Big Sky, Montana, in accordance with your request of April 16, 1976. We appreciate the opportunity given to express our agency's concerns with respect to the energy implications of the project and would like to receive a copy of the Final EIS upon completion.

The FEA would like to suggest that the environmental impact statement address the following energy related questions with regard to the highway construction being proposed:

1. Considering the aspects of energy development in the immediate and/or adjoining counties, how will the proposed action facilitate energy development?

2. What are the energy trade-offs of the various alternatives being considered? Has an energy analysis been conducted?

3. Would the proposed highway improvement inadvertently create an unnecessary demand or increase in petroleum products in the transportation sector?

4. Are the construction materials proposed the most energy efficient for the application and for maintenance over the life of the road?

5. Does the proposed action adequately address energy conservation in its planning, design, construction procedures, and in its utilization?

With the present emphasis placed on energy within the transportation system of our Nation, it behooves each government agency to weigh such questions as these in their decisionmaking process. The document presented did not seem to adequately acknowledge these issues.

If you have specific questions with regard to these comments, please contact our Environmental Specialists at (303) 234-2165.

Sincerely,

Dudley E. Faver

Dudley E. Faver
Regional Administrator

cc: Dr. Robert Stern
NFEA, Office of Conservation & Environment

Date Recd. Preconst. 1/28/77

Act	Info	MAIL ROUTE	Attach	Initial
		30		
		30 Eng. Specialties		
		Contract Plans		
		32 Loc. Road Design		
		33 Environmental		
		Hydraulic		
		35 Surface Design		
		36 Photogrammetry		
		HOLMES		
		Traffic		
		Pub. Hearing		
		Sec. - Urban		
		39 Consultant Design		
		File		

1. The proposed action will not have any significant impact on the energy development of the immediate or adjoining counties.

2.-3. An energy analysis was made, using the Department of Transportation's transportation improvement impact analysis "Simplified Analysis", which is based on gas consumption. The analysis indicated that there would only be a small increase (7%) in the use of petroleum products as a result of the proposed project over the no-build alternate.

The no-build alternative would save the petroleum products that would be used for construction.

4. The Montana Department of Highways' general practice is to design every project, based on the specific standards required, in the most economical way for the life of the project. This holds true for the U.S. 191 Spur.

5. The Montana Department of Highways feels that energy conservation has been considered in the design, construction procedures, and planned utilization of this proposed project.

STATE OF MONTANA

DEPARTMENT OF

FISH AND GAME

Helena, Montana 59601

May 19, 1976

Mr. H. J. Anderson, Director
Department of Highways
Helena, Montana 59601

Attention: Mr. S. C. Kologi, Chief
Preconstruction Bureau

Dear Mr. Anderson:

We have reviewed the draft environmental impact statement for project RF 20 (4), U. S. 191 Spur. We indicated to you in a letter dated December 31, 1974, in response to your letter of intent for this proposed project, that we were opposed to any upgrading, other than paving of this roadway, because of its potential for increasing further development in adjacent areas to the detriment of high-quality fish and wildlife habitat in these areas. A copy of this letter is attached and we would appreciate it being entered as part of our review comments.

On pages 5 and 6, in the discussion of the history of the project, you indicate that road improvement was first to be funded with a grant from the Economic Development Administration and matching funds from Big Sky of Montana, Inc. Such funds were denied by the EDA. We wonder what the reason for this denial was and whether environmental considerations related to the economy in the area were a part of the reason for this denial.

A major concern of this department has been the possible extension of the Big Sky Spur into the Madison drainage. This extension is mentioned on pages 5 and 6 and summarily dismissed as " . . . unfeasible because of construction obstacles, environmental impacts and lack of available funding." Since similar deterrents to highway construction have been overcome in the past, we doubt that they would effectively block the extension if a decision was made to extend. We suggest that this is a major potential secondary effect of the Spur project and the ramifications of this effect should be fully discussed in the statement.

On page 16, you state that the Gallatin Canyon case study (which we assume is the Murray-McCormick citation listed in Appendix A) has shown " . . . no observable adverse changes in the chemical or biological quality of the surface or ground water." In the next paragraph, you indicate that " . . . the aquatic insect population is recovering, although it has not yet reached preconstruction levels." The statements are obviously contradictory. We have in the past received several complaints of sedimentation of the West Fork and the Gallatin River as a result of road and resort construction and subsequent runoff from disturbed areas. We are therefore quite skeptical that the streams involved will not be subject to increased water quality degradation as development proceeds. We agree, however, that paving and installation of proper drainage structures will assist in minimizing this degradation. Prevention of this sediment pollution is appropriately a responsibility of the developer.

On page 45, the projections of traffic on U. S. 191 seem to be very uncertain. Increased traffic to Yellowstone Park and increased traffic generated

by other developments such as Ski Yellowstone will certainly tax the capacity of U. S. 191, unless unforeseen circumstances worsen the energy problem. Regardless of when the capacity of U. S. 191 is reached, what will be the recommendation at that time for handling excess traffic? It appears that some discussion of alternatives other than further increasing the capacity of U. S. 191 should be included in the statement. For example, should U. S. 191 and the Big Sky spur road remain as low-speed recreational and scenic roads, and routes for through traffic be developed through the Madison where room does exist for roadway expansion? Are roads to be constantly upgraded without acknowledging the fact that sooner or later further upgrading must be done at great expense to Montana's natural resources?

On page 47, you state that "Expansion of U. S. 191 to a four-lane highway would not be recommended for environmental and construction reasons." A letter of intent from the Department of Highways dated October 7, 1975 states, however, that "A four-lane section will (be) considered at least from Four Corners . . ." into Bozeman, on a project beginning approximately two miles south of Four Corners. We detect a strong indication that the expansion of U. S. 191 to a four-lane highway has at least very recently been given serious consideration. Would you please clarify the exact meaning and significance of " . . . would not be recommended"?

On page 48, if design alternate 1B, which would by-pass the active slide area, were chosen, would there be any attempt to rectify erosion problems and rehabilitate the area of roadway and slide which now exists? If alternative 1B were selected, the cost of rehabilitating this area should be included (if it has not been) in the cost of alternate 1B.

On page 49, sub-alternate 1C is described. This alternate requires a 60-foot high earth fill and a 60-foot cut through the ridge to the west. We are categorically opposed to such a fill and cut in this area.

We were asked to review comments prepared by the Department of Highways' Environmental Unit relating to wildlife for this impact statement, in correspondence dated April 17, 1975. These comments included a brief discussion of elk range and possible secondary effects of development on elk range and numbers of elk. This type of discussion seems to be very appropriate, but was omitted from the draft statement. We believe these comments should be included in the final statement.

An additional omission from the draft statement concerns the activities of the Impact Evaluation Group. We believe a brief discription of the group and its function, and a report dated December 30, 1974 of a field review of the Big Sky Spur area on December 16, 1974 should also be included in the statement.

We thank you for the opportunity to review and comment on this environmental assessment.

Sincerely,

Wesley R. Woodgerd
State Fish and Game Director

WRW:RWB:ale
Attachment

84 Ralph W. Boland

Ralph W. Boland, Assistant Administrator

Paragraph 1. This letter has been included as requested.

Paragraph 2. The Economic Development Administration reviewed the application and felt that the proposed access road did not meet the intent of the Public Works Economic Act of 1965.

Paragraph 3. The extension of the road has been discussed in the draft and again under the EPA's comments.

Paragraph 4. The paragraphs referred to have been rewritten. The two statements are not contradictory. The Gallatin Canyon Case Study refers to the Montana State University, Institute of Applied Research's Study, correctly titled "Impacts of Large Recreational Developments Upon Semi-Primitive Environments: The Gallatin Canyon Case Study." This study stated that "No observable changes in quality of surface or groundwater have occurred in the West Fork due to Big Sky - other than some added sediment during construction." (See Water Quality, Page 96.)

Paragraph 5. The Department of Highways cannot see in the predictable future when the capacity of U.S. 191 in the Gallatin Canyon would be reached, which makes it very difficult to make recommendations as to what actions would be necessary to remedy the overcapacity problem. If the Department should foresee the need for a transportation facility beyond what a two-lane highway could carry, all reasonable alternatives will be considered.

Paragraph 6. The statement was made in reference to that portion of U.S. 191 in the Gallatin Canyon where there would be major environmental and construction problems. It was not made in reference to the entire length of U.S. 191 in Montana. The sentence has been changed to clarify this.

Paragraphs 7-8. The recommended route will be to improve the road, following Alternates 1A and 1D. This would require rehabilitation and stabilization of the slide and following the PTW (present traveled way) through Beehive Creek.

Paragraph 9. Additional information has been added.

Paragraph 10. The Impact Evaluation Group, as defined by the Montana Department of Highways "Montana Action Plan", is a permanent interagency body formed to identify and review economic, social and environmental effects of highway improvement proposals and projects during systems planning, location and design, and monitor their consideration within the Department of Highways. The Group's membership has been listed in Appendix E.

The Group has reviewed and discussed this proposed project many times and to include just one discussion without the rest would not give a complete picture of the Group's role in the project. Therefore, the review referred to has not been included.

DEPARTMENT OF
FISH AND GAME
Helena, Montana 59601
December 31, 1974

Mr. H. J. Anderson
Director of Highways
Department of Highways
Helena, Montana 59601

Attention: Steve Kologi

Dear Mr. Anderson:

This correspondence is in response to your letter of intent for proposed project DP 20(2), U. S. 191 Spur.

The proposed project is in an area where wildlife, scenic and wilderness values are unique and should be preserved. In addition, a similar project proposal has been previously challenged in the courts because of several controversial aspects of the project, not the least of which are the potential secondary effects in the surrounding area, as well as in the immediate area. Various plans and rumored intentions of developers for further encroachment into wild areas are of concern to this department because of the proximity of the project to superior big game range, and specified and de facto wilderness areas. We believe that any road improvement project which would tend to encourage intensified development in the area will have adverse effects on these values.

Because of the above we believe improvement should be minimal and the project limited to surfacing the existing roadway from Highway 191 to the Big Sky Upper Village. Design speed should not be increased by flattening curves or by providing any other project feature which would tend to encourage higher speed traffic and subsequent encroachment into the surrounding area. The Big Sky complex has been highly publicized as a recreational development. It appears to us that a low speed and scenic road would better suit the character and stated purpose of the development.

We therefore would concur only with surfacing the existing present-traveled-way. We suggest that funds available for proposed further encroachment into the unroaded sections of the corridor be used to rectify present problems of slides and inadequate drainage created in the corridor by Big Sky Corporation's previous construction efforts.

Sincerely,

Wesley R. Woodgerd
State Fish and Game Director

By: Ralph W. Boland, Assistant Administrator
Environment and Information Division

RWB:jd

THE HOSTELS
Big Sky, Montana 59716
MEADOW VILLAGE
MOUNTAIN VILLAGE

Mountain Village
Big Sky, Montana
JAMES LEFEVRE
995-4451

Meadow Village
Big Sky, Montana
CHARLES BURMEISTER
995-4269

Jackson Hole, Wyoming
COLBY WILSON

April 30, 1976

Mr. H. J. Anderson
Dept. of Highways
Helena, Montana 59601

Dear Mr. Anderson,

After studying the draft of the environmental statement for Project RF-20(4) U.S. spur 191 I feel that the sooner this project is begun the better it will be for the economic, social, and environmental conditions of the Gallatin area that will be effected.

It is very clear that the no-build alternate would only effect adversely the above conditions and result in much greater costs for the same action further down the road. I also feel that paving the first three miles and beginning the construction of the upper 6.1 miles at about the same time will probably be better than stretching it out over a long period of time. It will be better to suffer some inconvenience and possible loss of business in as short a time span as possible.

We believe that alternate 1A and 1C should be the considered routes as 1A seems to provide an acceptable passage at a lower cost and would not make new cuts or new timber usage. 1C because it is the safer of the two and serious injuries or deaths that could possibly be avoided by providing a safer passage would more than off set the additional cost. It would also reduce maintenance costs which would help pay its way in the long run.

The statement adequately indicates the need for the project and the excessive maintenance costs that have been experienced to this date.

We feel that as one of the last major destination resorts to be built in this country for probably several years to come and the fact that the general public will be making greater demand and uses of the existing resorts we should do everything humanly possible to make this resort community the finest, most [illegible] resort of its kind in every way. This is necessary in order to stay ahead of the demands that will be made in the future.

We also believe that anyone that opposes this project and causes delays are not serving the best interests of the community, the state, or the environment of the Gallatin area. We feel that the groups of so called environmentalists who have delayed this project to date or groups opposed to recreation developments in the future might better spend their time trying to get laws passed to make sure that all future projects in Montana of this type be required to have the roads and other public facilities completed before opening to the public. Problems such as this would not waste time and energy and money in the future and everyone would benefit from better planning in advance.

Very truly yours,

A. James LeFevre
President, Hostels[x] of Montana, Inc.

Date Recd. Preconst. 5/3/76

Act	Info	MAIL ROUTE	Attach
		BCR	
		30 Eng. Specialties	
		31 Contract Plans	
		32 Loc. Road Design	
		33 Environmental	
		34 Hydraulic	
		35 Surfacing Design	
		36 Photogrammetry	
		HOLMES	
		37 Traffic	
		37 Pub. Hearing	
		38 Sec. Urban	
		39 Consultant Design	
		File	

General: The work on the lower three miles is essentially complete and can be put to contract in the shortest time. There is still some design work to be completed on the upper 6.1 miles. To wait for the total completion of all the plans before initiating construction on the lower three miles would seem to be an unnecessary delay. This is why two construction dates have been proposed.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Federal Building
Missoula, Montana 59801

HELENA, MONTANA

8430

AUG 6 1976

Mr. H.J. Anderson
Attn: Preconstruction Bureau
Montana Department of Highways
Helena, MT 59601

Dear Mr. Anderson:

Following are my comments on the draft of the environmental impact statement for U.S. 191 Spur. I believe the document, in total, adequately represents the environmental, social, and economic situation. I hope my comments will help further strengthen the document.

General Comments

There are five Forest Service transportation facilities connecting with the proposed highway to Mountain Village.

Andesite Road #2657 Forest Service - BN cost share road. Provides access to BN and Big Sky land. Also services Camper Village and Trailer Village. Intersection between station 170 and 180 has limited visibility to south. Stop signs should be installed on this road as well as the roads listed below.

Loop road #166B East Junction Forest Service - BN cost share road. Provides access to Forest Service and Big Sky land as well as to an important Forest Service trail to the Spanish Peaks Primitive Area. Intersection near station 240 is not adequate.

Loop road #166B West Junction Forest Service - BN cost share road. Provides access to BN, Forest Service and Big Sky land. The intersection near station 320 is very inadequate as a result of Big Sky reconstruction of the Middle Fork road. See discussion later of Alternative 1-B.

Beehive Trail #40 - Forest Service trail. Provides access to National Forest land in Beehive Basin. Intersection is near station 480. Public parking--10-car capacity should be provided at this point.

6200-11 (1/69)

Middle Fork Road #166 - Forest Service road. Continues from the end of the highway project to National Forest land in Section 24, T. 6 S., R. 2 E. A Forest Service trail leaves the end of this road and serves Jack Creek drainage. The junction at station 480 with the Forest Service road should be protected.

If this project is approved, I would appreciate representatives from the Gallatin National Forest being included in on-the-ground design reviews to insure compatibility of this project with the above Forest Service transportation facilities. Burlington Northern should also be included in such reviews.

An adverse impact not talked to is the increased risk of man-caused fire during the construction project. The contractor would of course need to meet State fire laws. Inspection would be by Forest Service personnel as we are the responsible agency for wildfire activities within the project area. During the life of the project we could expect shutdown of the project due to extreme fire danger for 1 week and could expect that one or two man-caused fires would result from the project. We could expect that each fire would burn less than half an acre but the potential exists due to heavy volumes of natural fuel for a fire up to 1,000 acres if it started on a bad fire day. The contractor causing the fire would be liable for fire suppression costs and damages.

The disposal of road clearing slash, while limited in volume due to existing road clearance, also poses a fire risk. Disposal, if by fire, would require a permit from the Forest Service. The Gallatin District Ranger can provide technical advice to the contractor on burning slash.

Rehabilitation of abandoned sections of the existing road is not discussed. I would like to see a provision as part of the project to vegetate and stabilize these short sections to be abandoned.

Specific Comments

Page 21 Big Sky has become a Regional center for downhill and cross-country skiing.

Page 26 The Taylor-Hilgard area and Hyalite-Porcupine-Buffalo Horn area are proposed for study for wilderness classification by S. 393. S. 393 remains in committee in the U.S. Senate. If and until S. 393 passes both Houses of the Legislature and receives Presidential approval, its provisions do not govern National Forest land.

Page 47 I support the position taken by Montana Department of Highways that expansion of Highway 191 in the Gallatin Canyon should not be considered a viable option for environmental, construction and esthetic reasons.

Page 48 I strongly recommend alternative 1B. Besides avoiding the very serious active portion of the land floor, this alignment will permit a much better intersection with Forest Service - Burlington Northern road 166B between stations 310 and 320. Big Sky's reconstruction of the Middle Fork road has resulted in an intersection which is unsatisfactory.

Page 49 I agree that alternative 1D would be undesirable to meet traffic capacity and provide for safety. Can alternative 1C, however, be adjusted to reduce the amount of cut and fill and still meet design criteria? The cut between stations 450 and 460 appears to be a through cut which will be a maintenance headache. Can design standards be met by a daylighted cut near 450 and greater curvature in the cut area and into Beehive Creek? If these modifications cannot be achieved, I believe alternative 1D is the better choice.

Maps Station 210, will this cut be daylighted or a through cut? A daylighted cut will be highly visible from Meadow Village. A through cut is a maintenance problem.

At station 388 and again at 393 there are active unstable soil formations. 393 has been evaluated by your department. During a past field trip minimizing measures were discussed for this site. What are the mitigating measures planned for these two unstable sites?

What are the heights of stream crossings at Middle Fork and again at North Fork? Could an underpass for cross-country skiing, horseback riding, game, etc., be included at these two sites and at Beehive Creek? Big Sky's cross-country ski trails and horse riding trails cross the highway proposal near Middle Fork and again near North Fork. Substantial fills will probably be needed at both sites making a crossing site difficult and of course it would be dangerous anyway. A ground level passage or bridge with an added span would reduce this problem.

Public access points (to trails, etc.) along the highway should have parking turn-outs and be plowed in the winter.

Thank you for the opportunity to comment.

Sincerely,

for Keith M Thompson

LAWRENCE M. WHITFIELD
Acting Regional Forester

Date Recd Preconst.	Initial	Attach	MAIL ROUTE	Info	Act
			30 — 30 Eng. Specialties; 31 Contract Plans; 32 Loc. Road Design; 33 Environmental; 34 Traffic; 35 Surveying Design; 36 Photogrammetry; 37 Public Hearing; 38 Sec. Urban; 39 Consultant Design; File		

General — The listed points have been added to the final.

Paragraphs 1-2 — Each intersection will be studied for its own requirements. Final design details will be coordinated with the Forest Service and Burlington Northern.

Paragraphs 3-4 — This information has been added.

Paragraph 5 — Obliteration of abandoned roadways is a standard construction procedure. A discussion has been added to the final.

Specific Comments

Page 21 - This information has been added.

Page 26 - This information has been changed to include this information.

Page 47 - No comment.

Page 48 - While Alternate 1B has some definite design advantages, it is not as environmentally desirable as Alternate 1A, and from input from the public hearing, the preferred alignment is Alternate 1A. This is the route being recommended by the Department.

Page 49 - Again, Alternate 1C has design advantages but is not environmentally desirable. Input from the public hearing indicated that 1D is the desired route, and is the recommended route.

Maps

Paragraph 1 — This will be a daylighted cut.

Paragraph 2 — The mitigating measures will involve subexcavation, wasting of slide material, installation of perforated drains, and improving existing creek channels to eliminate seepage into the slide area. This will stabilize the slide. The cut and fill slopes will then be topsoiled and reseeded.

Paragraph 3 — The height of the fills across the Middle Fork and the North Fork will be 18 feet and 45 feet, respectively. The feasibility of such underpasses are now being studied, as they were also brought up at the public hearing.

BURLINGTON NORTHERN

Timber & Land Department

Mr. H.J. Anderson
Director of Highways
Montana Dept. of Highways
Helena, Montana 59601

(Attn: Preconstruction Bureau)
RF-20 (4)
U.S. Hyw. 191 Spur

Initial
Attach
Date Recd. Preconst.
MAIL ROUTE
Info
Act
39 Consultant Design
File

Holmes

Dear Mr. Anderson:

Following are some initial comments on the proposed U.S. Hwy. 191 Spur project:

Burlington Northern has five existing access points to its lands along the existing roadway between the Meadow and Mountain Villages. Route planning should either protect these existing access points or provide for their adaquate replacement.

There are existing landslide problems in both sections 27-6S-3E and 28-6S-3E. Route planning should consider these problem areas and how they are going to be handled.

Alternatives 1-B and 1-C appear to be the most desirable from my point of view.

As the project develops, we can be contacted at the above address for on-site reviews of the specific locations of our access points.

Sincerely,

W. J. Parson

W. J. Parson
Manager, Forest Land
Gallatin Management Unit

copies to: Mr. J.P. Duke
Mr. Richard Miller (Mont. Hwy. Dept.-Bozeman)

General Burlington Northern's and the Forest Service's access points will be taken under consideration. Information on these points have been added to the final statement.

Landslide problems have been discussed in the draft and the selected alignment is discussed in the final.

United States Department of the Interior

OFFICE OF THE SECRETARY

MISSOURI BASIN REGION

BUILDING 67, DENVER FEDERAL CENTER
DENVER, COLORADO 80225

IN REPLY REFER TO:

ER-76/458

JUN 22 1976

Mr. Harold N. Stewart
Division Administrator
Federal Highway Administration
501 North Fee Street
Helena, Montana 59601

Dear Mr. Stewart:

We have reviewed the draft environmental statement for the proposed improvement of the U.S. 191 Spur, Gallatin and Madison Counties, Montana, Project RF 20 (4), and are providing the following comments.

General Comments

The draft statement is generally adequate in describing the proposed action and the type of impacts which will result, but the draft is inadequate in addressing some characteristics of the existing environment and the extent of the adverse impacts which the project will have on traditional land and recreation uses, wildlife, and cultural resources. Our specific comments below will identify the additional information and analysis which should be included in the final environmental statement.

Specific Comments

1. Land Use

The draft statement presents a general description of the current land ownership pattern in the project area and indicates that improvement of the existing road will stimulate further changes in land use similar to those which have occurred during the last five to ten years. This information, however, describes only the general nature of the land use changes which the project will encourage without attempting to describe the location and extent of such changes. The final statement should provide graphic and textual descriptions of existing uses, such as cropland, forest, undeveloped, residential, commercial, etc.: the location of existing platted subdivisions; and land use plans which Big Sky, Inc. and the U.S. Forest Service have prepared for their lands. This information would provide a better indication of the location of potential development and changes in land use, and allow better analysis of the secondary impacts which would follow.

Mr. Harold N. Stewart, FHWA, Helena, Montana

2. Recreation

The draft statement acknowledges the fact that the project area has been used for hiking, camping, hunting, fishing, and other recreation uses in the past, but does not indicate the extent of such uses. Detailed information on past, current, and projected recreation use levels should be available from the U.S. Forest Service and the Recreation and Parks Division of the Montana Department of Fish and Game. This information should be presented in the final statement and broken down as far as possible by activity and location, so that impacts on recreation use resulting from improved access to the area via the the proposed project and changes in land use can be assessed.

3. Fish and Wildlife

The draft statement inadequately assesses the extent of the project contributions to impacts on wildlife numbers, habitat, and management. Changes in land use will be stimulated by the project and significant increases in human activity in the area will result in unavoidable losses to wildlife. We are particularly concerned about such impacts on the grizzly bear, a threatened species under provisions of the Endangered Species Act of 1973.

Certain segments of grizzly habitat near the project area may be designated "critical habitat" by the Secretary of the Interior pursuant to Section 7 of the Endangered Species Act. As a consequence, it may be necessary to place restrictions on human activities within such segments in accordance with the responsibilities placed on all Federal agencies by the Act to protect such species and their habitat. Determinations concerning "critical habitat" for the grizzly bear are currently being considered by the U.S. Fish and Wildlife Service and other involved agencies, and the proposed project may effect subsequent efforts to protect the "critical habitat" of the grizzly. The final statement should reflect further consultation and coordination with the Fish and Wildlife Service Area Manager in Billings, Montana, and should also include further analysis of project impacts on the protection of grizzly bear habitat.

4. Cultural Resources

The final environmental statement should reflect consultation of the National Register of Historic Places as published in the Federal Register, Vol. 41, No. 28, February 10, 1976, and all monthly supplements which are published in the Federal Register on the first Tuesday of each month. The draft environmental statement does not establish that the National Register was consulted.

Mr. Harold N. Stewart, FHWA, Helena, Montana

We note that there has been consultation with the State Historic Preservation Officer. While we agree with his comments made by letter of April 13, 1976, they were made provided that the project only included upgrading the present highway. This does not appear to be the case. Rather, page 9 of the statement indicates portions of the construction project may involve alignment changes that could effect cultural resources not otherwise involved.

Page 35 of the draft environmental statement establishes that an archeological survey was completed in the West Fork area. However, the statement does not establish whether the survey covered the entire project area. This point needs to be clarified in the final environmental statement so as to establish whether agency responsibilities under Sections 1(3), 2(a) and 2(b) of Executive Order 11593 have been met.

Accordingly, we suggest that the Federal Highway Administration complete arrangements for archeological survey of any areas within the project terrain limits, including borrow areas that have not been previously surveyed in advance of preparation of the final environmental statement. Such further surveys should include all alignment changes.

We also note from page 35 of the draft environmental statement that seven archeological sites were located during survey work completed to date within the project area. However, the draft environmental statement does not establish what impact, if any, the proposed project will have upon them. The final environmental impact statement should address this question and state either that there will be no effect upon them, or in the event some adverse impact is to be anticipated, state what it will be and how this will be mitigated.

The final environmental statement should also include specific guidelines for immediate work stoppage in the event that previously unknown sites are discovered during project construction. These guidelines should include notification of the State Historic Preservation Officer, evaluation of the archeological remains by a professional archeologist and excavation if warranted. In this connection, it should be remembered that the recovery of artifactual remains is thought of as being a last resort after all other possible alternatives have been eliminated for good and substantial reasons.

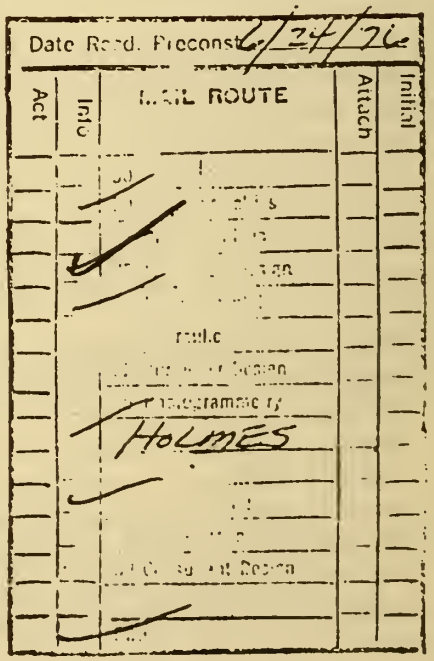
Mr. Harold N. Stewart, FHWA, Helena, Montana

The identification of any cultural resource sites that are determined to be eligible for inclusion in the National Register of Historic Places will require compliance with the provisions of the following documents: Executive Order 11593, Section 106 of the National Historic Preservation Act of 1966, and the Advisory Council on Historic Preservation "Procedures for the Protection of Historic and Cultural Properties" (36 CFR, Part 800).

Sincerely,

Special Assistant
to the Secretary

cc: Federal Highway Administration, Region 8, Denver, Colorado
Montana Department of Highways, Helena, Montana



General:

The draft EIS states on Page 8 that the information was a summary of several extensive studies made on the Gallatin and West Fork areas. The summation of the material into a general presentation is necessary to keep the length of the EIS reasonable for cost and dsitribution reasons. It is hoped that persons interested in specific details will go directly to the source material, which has been listed in Appendix A.

1. Land Use: As stated, land use for the West Fork has been kept general to cover the entire length of the project. An attempt in this document to identify existing land use for every parcel of land and to speculate on future uses, along with every other detail covered, would make the statement voluminous. "Impacts of Large Recreational Developments Upon Semi-Primitive Environments: The Gallatin Canyon Study", "Final Environmental Impact Statement, Gallatin Exchanges Nos. 2 and 3, Gallatin National Forest", and "Gallatin Canyon Planning Study, Final Report" are three of many studies done on the area that offer more detailed analysis of land use. The Forest Service does not have a multiple-use management plan, Part II for the West Fork at present. Publishing and distribution costs prohibit the inclusion of the multiple-use plans and Big Sky of Montana, Inc. master plan, but the existing Forest Service plans are available through the Gallatin district or the Gallatin National Forest Supervisor's office, and Big Sky's has been published in the Final Environmental Statement, Gallatin Exchanges Nos. 2 and 3, Gallation National Forest, or is available from Big Sky of Montana, Inc. directly.

2. Recreation: Detailed information on past, current, and projected recreational use are not available on a local level at present. The Montana Department of Fish and Game has published "Montana-Statewide Outdoor Recreation Plan, Vol. 2", which is a statewide study of recreational use on a regional

level. The West Fork area is in Planning Region 9, which includes Meagher, Park, and Gallatin Counties.

The Gallatin Ranger District, Gallatin National Forest, has provided a tabulation of recreational use on National Forest land on the Gallatin District for the last three years, and this has been added to the final.

3. Fish and Wildlife: Additional information has been added. While information supplied by the Fish and Wildlife Service Area Manager in Billings, Montana about critical habitat for grizzlies is not complete, their preliminary information indicates that the U.S. 191 Spur project and the immediate vicinity will not be designated as critical habitat.

4. The National Register of Historic Places has been consulted and the final has been changed to indicate this.

The proposed alignment is essentially only improving the existing road. The archaeological survey covered the entire project area and the final has been changed.

UNITED STATES GOVERNMENT

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE SECRETARY

Memorandum

1 JUN 1976

SUBJECT: Draft Environmental Impact Statement for RP-20(4), U.S. 191 Spur, Gallatin and Madison Counties, Montana
FHWA-MONT-EIS-76-01-D

DATE:

In reply refer to: TES-72

FROM: Assistant Secretary for Environment, Safety, and Consumer Affairs

TO: Chief, Environmental Programs Division, FHWA/HEV-10

This office has reviewed the draft environmental impact statement (DIS) for the proposed paving of the two-lane roadway from U.S. 191 to the recreational community of Big Sky, Montana. It appears that the section on alternatives could be strengthened in two respects, as indicated below.

First, there is a statement on page 47 that six alternates were considered in the prior EIS for this project, and that the alignment selected then was a combination of two alternates. We believe it would be helpful if the final package were to contain a brief discussion of the discarded alternates and the reasons for their rejection.

It should also be noted that the page (page 50) devoted to the "no-improvement" alternative fails to address the question of the capacity of the existing road, and page 3 is also ambiguous on this point. The reader is unable to determine from these and other portions of the text whether the capacity of the currently unpaved facility would be exceeded, absent further efforts to upgrade it, or whether the rationale for this project is purely a matter of comfort and added safety.

The numerous typographical errors should be eliminated for the final EIS, which could also benefit from improvements and additions to the graphic material available in the draft document.

Judith T. Connor

Paragraph 2. Since this information was fully covered in the first statement, #EIS-Montana-72-5574-F, that it is not necessary to again discuss alternates that are not to be considered.

Paragraph 3. A capacity discussion of the existing road has been added.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80203

JUN 7 1976

MONTANA HIGHWAY COMMISSION
RECEIVED
JUN 1 0 1976
HELENA, MONTANA

Ref: 8W-EE
D-FHW-J40021-MT

Mr. H. J. Anderson
Director of Highways
Montana Department of Highways
Helena, Montana 59601

ATTN: Preconstruction Bureau

Dear Mr. Anderson:

Thank you for the opportunity to review your agency's draft environmental impact statement (EIS) on Project RF-20 (4) U.S. 191 Spur. We have given this document and the proposed project a careful review and offer the following comments:

(1) As you know, one controversial aspect associated with the 191 Spur proposal has been that involving the potential extension of this road (west) and the environmental impacts that would result from this extension. This controversial subject should receive a more detailed discussion including the background of the extension proposal and the general environmental issues involved.

(2) The use of the traffic volume growth factors of 4.05 and 3.75 (p. 2 and 3) and the assumption on which these figures are based that residential and lodging development will reach 80% of that level planned needs to be substantiated. The justification for use of these figures is especially needed in light of the fact that, as the draft EIS points out, the Big Sky development and road use is not growing as planned (ultimate condominium development is less than 25 percent complete; private home development is less than 10 percent complete, p. 31).

Because there is a relationship between construction of the new road and the level of development in the West Fork area (p. 34), these growth rate projections need careful attention. This is especially important since not all the land development that could be benefitted by the road is that subject to Big Sky plans and controls and has the potential to be less environmentally acceptable than that associated with this larger development.

(3) The EIS needs to more adequately discuss the secondary development impacts associated with the road proposal. In addition to discussion of the role of the road to potential increase in the "desirability of developing private land adjacent to the Spur", the role of the road in land development plans of the U.S. Forest Service and Burlington Northern, Inc. (ref. p. 34) should be discussed.

(4) EPA, as you know, generally supports mass transit plans as important components in attempts to control air pollution, congestion, energy waste, etc. On page 4 you state that: "In addition, an adequate road system would help insure that there would be enough users at the facility to develop some form of common carrier transportation system." Though the area may well need mass transit in the future, EPA questions whether the need for the road project should be partially justified on this basis.

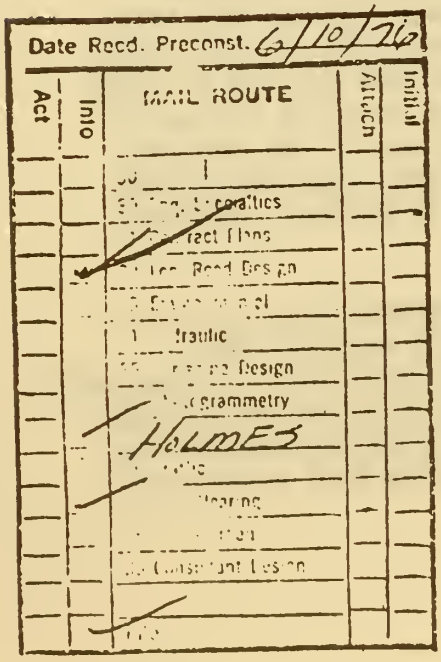
(5) EPA is concerned with the water quality aspects of this road proposal. The present road, especially certain sections near the Upper Village, is obviously cutting through highly erosive and unstable soils. If the new road is built, stringent erosion control must be enforced and follow-up measures instituted to ensure the long-term control of sedimentation.

Also, EPA recommends that rehabilitation of problem areas on the present road be made part of any larger road project.

According to the EPA rating system for draft impact statements this EIS is rated ER-2 (environmental reservations - insufficient information). We would be happy to discuss these comments with you should you have any questions.

Sincerely yours,

John A. Green
Regional Administrator



1. The Montana Department of Highways has never proposed extending the Spur westward and the presently proposed project in no way commits the Department to making the proposal. Since there are several plans to designate the Spanish Peaks Primitive Area and additional land as wilderness area and the boundaries have not been settled, no proposal can be made. The extension of the Spur to the Madison Valley appears unfeasible at present and predictable future.

2. The initial Big Sky Master Plan called for completion of the resort by the early 1980's. In light of the present and predictable economic and energy conditions, completion cannot be expected to be reached in 20 years, with the surrounding area expected to follow behind Big Sky. The 80 percent figure was used as the probable maximum development in 20 years.

3. For a more complete discussion of the Big Sky development, see "Impacts of Large Recreational Development Upon Semi-Primitive Environments: The Gallatin Canyon Case Study". The Forest Service and Burlington Northern access points have been added to the final.

4. This statement was also from the background economic study, "West Fork Economic Growth Center, Gallatin County, Montana." The paragraph has been changed to help clarify this. However, we feel that a well designed road system would encourage a common carrier transportation system.

5. Additional information has been added to the water quality section.

Rehabilitation of problem areas within the proposed construction limits will be considered in the project.

Mike Comola
Star Route
Noxon, Mt. 59853

August 9th 1976

U.S. Dept. of Transportation
Federal Highway Administration
Region 8, 501 N. Fee
Helena, Mt. 59601

30	
30 Eng. Specialties	
31 Contract Plans	
32 Loc. Road Design	
33 Environmental	
34 Hydraulic	
35 Surfacing Design	
35 Photogrammetry	
Holmes	
36 Traffic	
37 Pub. Hearing	
38 Sec - Urban	
39 Consultant Design	

Sirs,

I have completed review of the Draft Environmental Impact Statement (E.I.S.) for Project RF-20(4) U.S. 191 Spur and would be grateful for the opportunity to briefly express my observations.

I find nothing in the statement upon which to alter my unequivocal opposition to the Big Sky Inc. project, together with attendant power consumption, power transmission facilities and this publicly financed roadway to enhance primarily a private investment.

Page 34 Final Paragraph states the U.S. Forest Service and Burlington Northern Inc. would be aided by construction. I do not wish to see my fuel tax dollars allocated to aid either of these entities in their headlong rish to harvest timber; the sole land management plan.

Page 50 final paragraph is an adequate indicator of the Departments short sightedness, and apparent preconceived choice of options. As argued by numerous conservative Montanans, extravagant Government fiscal policy is abhorrent, I agree. Government intervention in private enterprise, physical and financial, is a detterent to competitive, inovative exercise of constitutionally guaranteed freedoms. Therefore, as this is a private undertaking, I recommend the following:

1) The U.S. Dept. of Transportation, Federal Highway Administration, recognize the private nature of this development and remove itself from associated activities and a 4 million dollar expense. I am certain Big Sky Inc., being a private corporation, would welcome the opportunity to pursue their own financial destiny without government intervention or reliance upon public gas tax funding for construction of their road.

2) D.O.T. recommend Big Sky Inc. and those year around taxpaying residents, seriously investigate the feasability of providing increased access to the West Fork via rail transportation, as mentioned on Page 47. Considering they are both most certainly environmentally aware and concerned, this method would of course be their primary choice of ingress and egress.

3) Page 34 mentions elimination of dust, mud, chuck holes, siltation of streams and reduction of vehicle wear and tear are positive effects of pursuing the road improvement project. These same goals might be attained, with additional advantages to: wildlife, social services, energy consumption and land use sanity - if Big Sky Inc. together with shareholders, Montana Power Co., Burlington Northern et al simply went away after reclaiming the abhorrent mess they have created in the West Fork drainage.

I hope this response might be entered into the record. Unfortunately, I could not attend the Bozeman hearing on August 3rd.

Respectfully,
M Comola

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION VIII
FEDERAL OFFICE BUILDING
19TH AND STOUT STREETS
DENVER, COLORADO 80202

MONTANA HIGHWAY COMMISSION
RECEIVED
MAY 17 1976
HELENA, MONTANA

OFFICE OF THE REGIONAL DIRECTOR

May 13, 1976

Mr. H. J. Anderson
Director of Highways
Montana Department of Highways
Helena, Montana 59601

Attention: Preconstruction Bureau

Dear Mr. Anderson:

Thank you for the opportunity to review the draft Environmental Impact Statement (EIS) for U.S. 191 Spur (Federal Aid Project No. RD20(4)).

It appears that the impacts expected to result from the proposed project and reasonable alternatives thereto have been adequately addressed.

Sincerely,

Rulon R. Garfield
Regional Director

cc: Office of Environmental Affairs, HEW,
Washington, D.C.
Council on Environmental Quality,
Washington, D.C. (2 copies)

Date Recd Preconst. 5/17/76
Initial
Attach
MAIL ROUTE
Info
Act
Holmes

DEPARTMENT OF THE ARMY
OMAHA DISTRICT, CORPS OF ENGINEERS
601A U.S. POST OFFICE AND COURT HOUSE
OMAHA, NEBRASKA 68102

MONTANA HIGHWAY COMMISSION
RECEIVED
MAY - 3 1976
HELENA, MONTANA

MROPD-A

30 April 1976

Mr. H. J. Anderson, Director of Highways
Montana Department of Highways
Attn: Preconstruction Bureau
Helena, Montana 59601

Dear Mr. Anderson:

This responds to your letter of 16 April 1976, your reference RF 20(4) U.S. 191 Spur to the Missouri River Division of the Corps of Engineers. The letter was referred to this office since the project area is within the Omaha District's boundary.

We have reviewed both the Draft Location and Design Study Report and the Draft Environmental Statement for the U.S. 191 Spur project and find that the proposed project will have little or no impact on any current study or operating project under the jurisdiction of the Corps of Engineers.

We appreciate the opportunity to review the Draft Environmental Statement and project report.

Sincerely yours,

JOHN E. VELEHRADSKY, P.E.
Chief, Planning Division

Date Recd. Preconst. 5/3/76
Act | Info | MAIL ROUTE | Attach | Initial
Helena

United States Department of the Interior

BUREAU OF MINES

EAST 315 MONTGOMERY AVENUE
SPOKANE, WASHINGTON 99207

Western Field Operation Center
May 25, 1976

Mr. Stephen C. Kologi, P.E.
Chief, Preconstruction Bureau
State of Montana
Department of Highways
Helena, MT 59601

Dear Mr. Kologi:

Project RF 20 (4), U.S. 191 Spur from U.S. 191 to about 9 miles westerly to Big Sky, Montana, has been reviewed previously for any adverse impacts upon mineral resources. The project is limited to paving an existing graveled road; therefore, there would be no adverse effect on mineral development.

Sincerely yours,

for R. N. Appling, Jr., Chief
Western Field Operation Center

Date Recd. Preconst 6/1/76
Act | Info | MAIL ROUTE | Attach | Initial
Holmes
30 Consultant Design

MONTANA
RECEIVED
AUG 10 1976
HELENA, MONTANA

Mr. and Mrs. R.F. Kbawiec
1103 Cherry Drive
Bozeman, MT 59715

Director, Montana Highway Department
Capitol Station
Helena, Montana 59601

Dear Sir:

We are opposed to the use of public funds for the construction of the 191 spur to the Big Sky Resort for the following reasons:

(1) We feel that since the road serves primarily a private resort that it would be an inappropriate expenditure of our gas tax monies. Especially in view of the fact that other projects in the area would serve more people.

(2) We fear that upgrading this road will encourage further developement both in the West Fork and in Gallatin canyon leading to degredation of our environment. It is not our wish that any of our tax monies, no matter how small, should contribute to such a possibility.

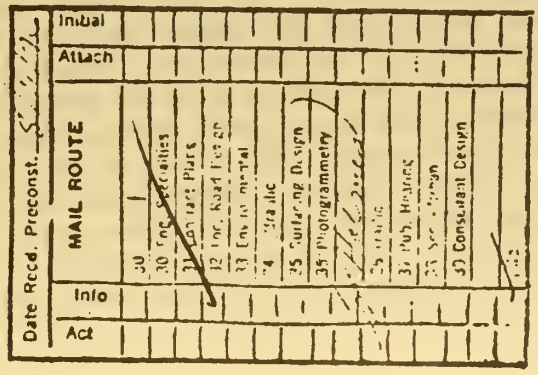
(3) We feel that if the road must be upgraded that there

are alternatives to public funding. Owners of the developement should be responsible for upgrading their own road.

(4) The prepared enviromental impact did not cover extensively the possible economic and enviromental impacts. We have no reliable information on effects on various plant and animal species nor do we have any reliable information on whether local communities are capable of handling a large influx of people.

(5) There is also a question of whether we the tax payer will have to pay this resort for the right of way to build this road. Can we really be expected to pay a resort for land to build them a road?

We oppose construction of the road and wish our comments and objections to be included as a part of the official record.



Diane S Krawiec
R F Krawiec

JUL 22 1976
HELENA, MONTANA

JIMMER'S BRASS BELL
MOUNTAIN VILLAGE (406) 993-4646
BOX 816 • BIG SKY, MONTANA 5971

CENTRALIZED SERVICES
ACCOUNTING
ENGINEERING
July 17, 1976
GROSS VEHICLE WEIGHT
LEGAL
MAINTENANCE
MOTOR POOL
PERSONNEL
OTHER

H. G. Anderson
Commissioner of Highways
Helena, Mont.

Dear Mr. Anderson:

We regret we do not have copies of previous correspondence supporting the pavement of U.S. Spur 191. Should they be available, they may be attached to, and made a part of this correspondence.

We have read the entire EIP draft and continue, even more vigorously to support the project of surfacing the first three miles and construction of the upper 6.1 miles.

Big Sky is a community consisting of private residences, businesses, medical clinic, ambulance, fire dept., industry, post office, public transportation, etc. It is serviced by many out-of-area suppliers, and is on many of the new highway maps. Population and services are equal to, and/or surpass that of many small Montana communities that enjoy respectable highways.

It is sad that our system allows a few disgruntled persons to continue to delay this project. Indeed, these people seem to have lost sight of their original objection - the environment. The dust and mud from the existing road continue to kill trees and foliage, and endanger wildlife in the area bordering the road, as well as settle in the adjoining streams. The dust inhaled by regular users of the road is incredible. In addition to this, the damage and depreciation to vehicles - private, public, and commercial - is most severe and hardly in the interest of conservation. These facts are presented and agreed upon in the EIP

Another method of attack by the opponents is "news" items such as "Taxpayers' money to be used to pave Big Sky road". Do they forget that we too are taxpayers?. Many of us have businesses and homes on which we pay substantial taxes for which we receive very few services. The huge tax base of the multi-million dollar resort itself must also be considered. All of this creates a tax base far greater than many rural communities. In addition to this we must regularly travel nearly 100 miles to pick up supplies and attend to other business. These necessary trips consume many gallons of gasoline on which we pay state and federal taxes considerably greater than most "city dwellers". Are we to be denied a suitable access to our community while our taxes are used for other projects and maintenance?

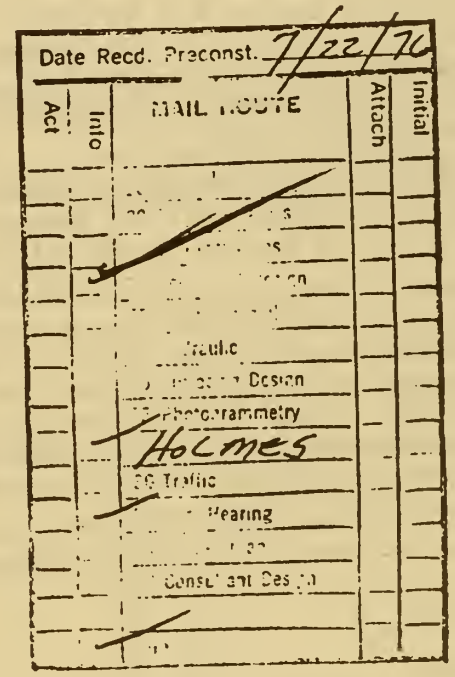
Montana spends a great deal of money each year to promote tourism, yet these tourists are degraded and appalled at the condition of this road. Tourists, guests, and convention groups have been very vocal regarding this deplorable situation and are nearly unanimous in favoring and supporting the project.

We regret we will be unable to attend the hearing in August and hope this letter will be given due consideration and indicate our support for the project.

Sincerely,

Carlette & Jim Gillispie

Mr. & Mrs. J. C. Gillispie



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30 Eng. Standards			
31 Contract Plans			
32 Loc. Road Design			
33 Environmental			
34 Hydraulic			
35 Surfacing Design			
35 Photogrammetry			
Holmes			
36 Traffic			
37 Pub. Hearing			
38 Urban			
39 Consultant Design			
File			

MONTANA HIGHWAY COMMISSION
RECEIVED
AUG 10 1976
HELENA, MONTANA

Environmental Information Center
P.O. Box 12
Helena, MT 59601
Phone: (406) 443-2520

August 10, 1976

Director, Montana Department of Highways
Capitol Station
Helena, Montana 59601

Dear Sir:

The Environmental Information Center (EIC) is a statewide citizens' group working for the sound use and protection of Montana's natural resources. We have reviewed the draft environmental impact statement for the Big Sky road proposal and wish to express our opposition to the expenditure of public funds for the Big Sky road--a road almost completely within the resort development area. We believe that it is highly inappropriate to expend public monies on a private, speculative land development, particularly when the resort is available to a narrow socio-economic spectrum such as Big Sky, Inc.

In addition, it is our belief that extensive improvement of the road will result in parasitic spin-off development that will further degrade the semi-primitive quality of the Gallatin Canyon.

The draft EIS is lacking in an objective appraisal of whether the $4 million proposed for this project could be better spent on other roads needing improvement in the area. A more prudent and equitable alternative would be for the Big Sky resort to pay for a lower standard road to serve it's facilities. Quite frankly, we are tired of seeing massive public subsidy of developments that can very well afford to pay their own way and we strongly feel that this is the place to draw the line.

We ask that this letter be made a part of the official hearing record. Please keep us advised of further decisions with regard to this issue.

Sincerely,

Bill Cunningham

/Bill Cunningham
EIC Staff

cc: Mr. James Goetz

EIC — an organization for Montana's people and land

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
REGIONAL OFFICE
FEDERAL BUILDING, 1961 STOUT STREET
DENVER, COLORADO 80202

REGION VIII

April 20, 1976

IN REPLY REFER TO:
8DE

RECEIVED
APR 22 1976
HELENA, MONTANA

Mr. H.J. Anderson, Director
of Highways
Montana Department of Highways
Helena, Montana 59601
ATTN: Preconstruction Bureau

Dear Mr. Anderson:

This is in response to your letter of April 16, 1976, forwarding a copy of the draft environmental statement for the proposed U.S. 191 Spur.

As you may know, this Department's main areas of concern in responding to a draft EIS are: (1) the consistency of an action with the comprehensive planning for the area; and (2) the action's impact on housing, particularly in an urban environment. In our review, we indicate that the proposed action will not require further comment in the HUD areas of jurisdiction assigned by CEQ.

Sincerely,

David L. Witt
Director, Environmental Quality Division
Community Planning and Development

4/23/76

Act	Info	MAIL ROUTE	Action	Initial
		SCK		
		HOLMES		

THE GREAT SEAL OF THE STATE OF MONTANA
ORO Y PLATA